

THE SHAFT GRAVES
AND
BEE-HIVE TOMBS OF MYCENAE
AND THEIR INTERRELATION
ARTHUR EVANS

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THE
SHAFT GRAVES
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OF MYCENAE
AND THEIR INTERRELATION

BY
SIR ARTHUR EVANS

LITT.D., F.R.S., F.B.A., HON. V.P.S.A.

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PREFATORY NOTE

THIS work in its original shape formed the subject of a communication to the Hellenic Society at their General Meeting on November 9, 1926. Its publication was, however, somewhat postponed in order to enable reference to be made to my Second Volume of the *Palace of Minos*, published by Messrs. Macmillan in 1928. I also thus had a better opportunity of profiting by Dr. G. Karo's article 'Die Schachtgräber von Mykenai' (*Ath. Mitth.*, xl, 1915: Athens, 1927), proofs relating to part of which he had, indeed, with singular liberality, considering the circumstances of the time, allowed me to see in 1915.

Owing, however, to the narrow format of the *Hellenic Journal*, which made it impossible to transfer directly certain illustrative material from the *Palace of Minos* and other sources, it was found advisable to issue the work in a separate form. This will also be reproduced as a Supplementary Section at the end of Volume III of the 'Palace' book.



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THE SHAFT GRAVES AND BEE-HIVE TOMBS OF MYCENAE AND THEIR INTER-RELATION.

Prevalent Views of Earlier and Later Dynasty.

It has become a generally accepted axiom that the two different kinds of sepulture of which we have evidence in the early remains of Mycenae supply the records of an earlier and a later dynasty. To the earlier of these were ascribed the pit-graves unearthed by Schliemann within the later Acropolis wall, much of the contents of which was from the first recognized to be of great antiquity. By Dr. Adler and others the construction of these was referred to the Danaï. The great bee-hive chambers, which by analogy must also have served a sepulchral purpose, though found void of their contents, were, archaeologically speaking, 'to let', and excellent tenants were found for them in the Achaeans.

This view of an earlier and later dynasty marked by distinctive modes of burial, has, indeed, been once more brought forward by the late Director of the British School at Athens, who ably conducted on its behalf the most recent excavations at Mycenae. As Mr. Wace states the case, part of the old native cemetery (distinguished by cist graves with 'rustic' contents) was made use of by a new dynasty, which came in 'not long before the beginning of the Sixteenth Century B.C.', and to which he gives the name of the 'Shaft Grave Dynasty'.¹ This cemetery, he considers, went out of use for royal interments in the Mainland Period ('Late Helladic I'), contemporary with the First Late Minoan of Crete, possibly 'because a new dynasty now sat on the throne of Mycenae'. From about the end of L. H. I begins the series of Tholos Tombs, 'which from their impressive and noble architecture we can only regard as the tombs of kings. . . . The different method of burial inclines us to the belief that a change of dynasty took place at Mycenae, and we may call this, the second dynasty, the "Tholos Tomb Dynasty".'

In one case, then, we find magnificent mausolea without contents, in the other case mere stone-lined pits huddled together, but containing the richest group of burial deposits that has ever been brought to light. Both groups of tombs may be fittingly described as 'royal', but it was plainly impossible to suppose that two separate contemporary dynasties had existed at Mycenae²

¹ *B. S. A.*, xxv, p. 391.

cit.) that it would be absurd to imagine two

² Mr. Wace, himself, rightly observes (*loc.* dynasties ruling simultaneously at Mycenae.

burying their dead within sight of each other in two entirely different fashions.

But may there not be a simple explanation at hand which avoids the necessity of calling in a second dynasty at all? It had occurred to me independently long since, and the idea, indeed, had been tentatively put out in an early Ashmolean Lecture, that the two sets of monuments in fact represented the remains of one and the same dynasty, the contents of the bee-hive tombs having been transferred to the grave pits as a measure of security in view of some external danger. The same explanation had already occurred to Professor Percy Gardner, who, as early as 1877, had put it forward in an article in the *Quarterly Review*, and who repeated it again in his *New Chapters in Greek History*, published fifteen years later.¹

'Certain circumstances of the burials of Mycenae', he observes, 'seem remarkable and full of meaning. Firstly, the bodies of the dead had been buried, in haste and some confusion, in graves too small and unduly crowded with treasures.' The apparent haste as well as a certain amount of confusion are, as I hope to show, to be explained by other considerations. But there is every reason to agree with Professor Gardner's main conclusions, namely, that we have to do, not with a first interment, but with a re-interment. 'It is hard to suppose', he adds, 'that the whole contents of the circle of stones were not placed where they were found on one definite occasion . . . I conceive that on some occasion, when the city of Mycenae was in danger from some invading foe, the people of the city began to fear lest the bodies and treasures of their early kings, buried in the [six ²] beehive-shaped tombs outside the walls of the citadel, should fall into hostile hands. So they must have removed bodies and treasures alike to a spot within the walls of the Akropolis, thinking that, at least within those mighty walls, safety would be found.'

Professor Gardner then proceeds to explain the disturbance and partial burning of the remains by the erection 'of rude pyres at the bottom of the grave-pits'. In this, written many years ago, it is not necessary to follow him. Schliemann's view, adopted by Dörpfeld and others, that the Mycenaeans practised cremation does not accord with the vast mass of sepulchral evidence since forthcoming.

¹ p. 76 seqq.

² More recent researches show that there were at least eleven. See the very careful

enumeration and description by Mr. A. J. B. Wace (*B. S. A.*, xxv, p. 283 seqq.)—a great advance on any preceding accounts.

Charcoal in Shaft Graves due to Fumigation, not Cremation.

The question itself is essential to the main thesis here put forward, since, if true cremation of the dead bodies had been practised on the occasion of their deposition within the Shaft Graves, it would follow that these were really primary interments and not merely due to the transference of bones or of embalmed remains from elsewhere.

But a sufficient explanation of such evidence of burning as is to be seen in the graves is supplied by a Minoan and Mycenaean practice of which we have now repeated evidences.

It is certain that fires were lit in Minoan tombs for the purpose of fumigation, and that ritual purification by means of a kind of resinous incense was also practised.¹ That this in certain cases has given the appearance of partial cremation is natural enough. This practice of fumigating the tomb, however, seems of its nature rather to have been taken over from spacious vaults like those of the neighbouring bee-hive tombs, and is itself less in place in pit burials. It goes back in fact to the earliest tholos burials of which we have any evidence in Greece, the primitive ossuaries of Early Minoan Crete, where considerable traces of charring and smoke stains are visible on the skeleton remains. From the marks of burning that also occur on the walls of these great vaults—many of which in their original dimensions could compare with those of Mycenae—they must at intervals have been the scene of what might be described as great house-warmings of the dead.²

It is quite possible that some such ritual fumigation may have taken place in the great grave-pits at Mycenae, and this may account for Schliemann's very emphatic statements as to the traces of fire and smoke on the bodies and the sides of the tombs. Thus, in describing the Second Tomb, which contained three bodies of females, he writes: ³ 'The bodies were only separated from the surface of the levelled rock by another layer of small stones on which they were lying, and they had evidently been burned simultaneously in the very same place where they lay. The masses of ashes of the clothes that covered them and of the wood which had partially or entirely consumed their flesh, as well as the colour of the lower layer of

¹ e. g. in Tomb 1, at Isopata near Knossos, lumps of resinous material were found together with bits of charcoal in a clay chafing-pan (A. E., *Tomb of the Double Axes*, &c., p. 13; *Archaeologia*, vol. lxx).

² See especially Stephanos Xanthudides,

Vaulted Tombs of Messarà, pp. 6, 26, &c., and p. 129, and compare my remarks in the Preface, p. xi. See, too, G. Karo, *Phil. Wochenschrift*, 1925, nos. 24, 25 (Sonderabdruck, p. 2).

³ *Mycenae*, p. 155.

4 MASKS AND JEWELLERY FIXED TO WOODEN COFFINS

stones and the marks of the fire and the smoke on the stone wall, which at the bottom of the sepulchre lined all four sides, can leave no doubt on this point.' He observes, nevertheless, that the three 'pyres' of which he believed he had found distinct traces 'could not have been large', and as the bones and skulls were preserved, could only have been intended to consume the clothes and flesh. This, at most, would have been a very partial cremation. In the case of the Fourth Grave he again insists on the abundance of ashes around each corpse and the marks of fire on the pebbles and schist wall.¹

Fumigation and deodorization—like that practised in the still earlier sepulchral vaults of Crete—there may well have been, and in that and other cases this often led to a blackening of skulls and bones, and possibly to a superficial burning of their envelopes. The most extreme instance of this superficial burning of which I am aware was in the L.M. I *a* chamber tombs recently excavated by Dr. Blegen near the Argive Heraeum, and some of which I had the opportunity of visiting at the time of excavation. There, below a burnt layer that covered the whole floor, were charred bones of the interred persons and other much carbonized remains. Other skeletons, however, lying in cavities had not suffered. But the carbonized wood found in connexion with many of the interments within the Shaft Graves—apart from what may have been due to the falling in of the beams above that supported the roof of the vaults—is capable of a very simple explanation.

The carbonization of wood in such positions is not by any means necessarily the result of fire, but is also effected by chemical processes, and it seems highly probable that what Schliemann regarded as traces of small pyres under each body should really be explained as the remains in each case of the wooden chest or coffin in which the body had been deposited.

Masks and Jewellery fixed to Wooden Coffins.

This conclusion is supported by some interesting observations made by the late Director of the Athens Museum, Dr. Stais, with regard to certain objects of thin gold plate found in the Shaft Graves.² He pointed out that several classes of ornaments bore clear traces of having been attached to a wooden framework. One example, of particular importance, is supplied by a stellate ornament from Grave III (Fig. 1) with six radiating embossed plates, to the centre of which was attached a bronze nail, preserved to

¹ Schliemann, *Mycenae*, p. 214.

conclusions are to a large account accepted by

² 'Εφ. 'Αρχ., 1907, p. 32 seqq. Dr. Stais's Dr. G. Karo (*Ath. Mitth.*, 1927, p. 135 seqq.).

a length of 5 centimetres.¹ It is clear from this that a series of other ornaments of a similar type were nailed in the same way to a solid background.

A large number of smaller bronze nails and their heads of slightly bossed gold plate were found in Grave IV,² by which, doubtless, smaller

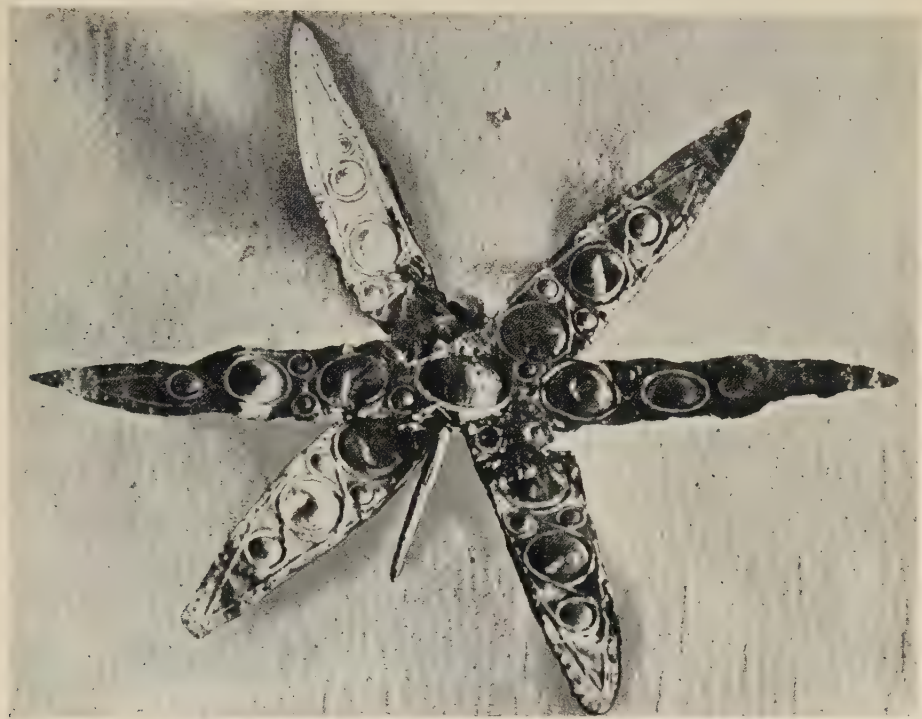


FIG. 1. STELLATE ORNAMENT OF THIN GOLD PLATE WITH BRONZE NAIL FOR ATTACHMENT TO COFFIN. FROM THIRD SHAFT GRAVE, MYCENAE.

ornaments were fixed in the same way. The small holes in the diadems and 'half-diadems' in Dr. Stais's opinion were also designed for tacking them on in a similar manner to a wooden surface.

In the case of the the gold masks the holes seen by the ears—such as are notably visible in one from the Fifth Grave³—also point to the use of nails for attachment. A proof of direct overlaying on a level surface is at the same time supplied by the flattened border that they all present.⁴ A narrow

¹ Stais, *op. cit.*, pp. 45, 46, and Fig. 7.

² Stais, *op. cit.*, p. 47, and Figure.

³ *Op. cit.*, p. 54, Fig. 8; Schliemann, p. 221, Fig. 332.

⁴ In the case of the bearded mask (Schliemann, p. 289, Fig. 474), only a section of such

a border existed above the forehead. Dr. Karo, *op. cit.*, p. 136–8, prefers the view that the masks were placed on faces of the dead, and that the holes by the ears were for tying them on. As suggested below, both views are reconcilable with one another.



FIG. 2. MASK OF GOLD PLATE FROM SHAFT GRAVE V, MYCENAE ($\frac{1}{2}$).
(Tucks are inserted in the perforations below the ears.)



FIG. 3. MASK OF GOLD PLATE FROM SHAFT GRAVE IV, MYCENAE ($\frac{1}{2}$).
(*Double perforations are visible behind the ears.*)

border with similar nail-holes is also visible on the upper margin of the breastplate from Grave V.¹ The lion mask was fixed in the same way on a flat surface.

Good illustrations of these features are supplied by the two masks here reproduced to half-scale in Figs. 2 and 3 from Schliemann's original photographs. The first example (Fig. 2)—the finest of all—from Grave V² shows a bearded and mustachio'd face that has the best claim to be based on a real likeness of the deceased. Here the perforations for attachment are clearly visible beneath the ears, with the heads of the modern tacks—with which they were fixed to the background for photographic purposes—protruding through them. The flattening of the plate above the forehead is also clearly marked, showing a ridge, as if some band had been superposed. The other mask (Fig. 3), from Grave IV,³ presents traces of this flattening out round its whole margin, the two sections of this flat border behind the ears showing a double perforation. Though the attempt at portraiture is here very inferior to the other, the lashes of the closed eyes, absent in Fig. 2, are here engraved.

The Gold Masks—a New Example.

To the masks bearing these marks of attachment to a wooden surface I am now able to add the further example, made of thin gold plate, reproduced in Fig. 4, *a, b*. It was originally in the collection of Dr. Julius Naue, the eminent prehistoric authority of Munich, whence it passed into a Dutch Collection⁴ and later formed an item in a miscellaneous sale of Sotheby's⁵ in 1927, where I was able to acquire it. According to Dr. Naue's information, which there is no reason to doubt, the gold mask was found in a Boeotian tomb. It is not necessary to suppose that the coffin, to which it, *ex hypothesi*, belonged, was placed on the floor of a tomb of the 'bee-hive' type. From its smaller dimensions it may well have stood within one of the rock-cut

¹ Schliemann, p. 301, Fig. 458: better shown by Stais (*op. cit.*, p. 54, Fig. 9), but there upside down.

² Schliemann, *Mycenae*, pp. 311, 312, and Fig. 474 (p. 389); Schuchhardt, p. 253, Fig. 254. The perforations below the ears are not shown in these cuts.

³ Schliemann, *Mycenae*, p. 220, Fig. 331; Schuchhardt, p. 223, Fig. 223. The perforations are again not visible in these cuts.

⁴ It was for some time in the Museum of

Dr. C. W. Lunsingh Scheurleer at the Hague. (See his *Catalogus eener Verzameling van Egyptische, Grieksche, Romeinsche en andere Oudheden*, 1909, No. 574 and Pl. LIV.) It was afterwards sold, owing to quite unjustifiable doubts having been expressed as to its genuineness. It is now in the Ashmolean Museum.

⁵ Sale of Monday, December 19, Catalogue no. 168, and Pl. III. Dr. Naue died in 1907.



a

FIG. 4. MASK OF THIN GOLD PLATE SAID TO HAVE BEEN FOUND IN A BOBOYAN TOMB: *a*, UPPER SURFACE; *b*, LOWER SURFACE.



b

chamber tombs such as we know to have existed throughout Mycenaean Greece. (See Fig. 4, *a*, *b*.)

The plate is small, 167 millimetres ($6\frac{9}{16}$ in.) by 155 ($6\frac{1}{8}$ in.), and the face, which is that of a bearded man, is about two-thirds the natural size. Obviously, from its small size, this was not a death mask to be placed on the face of the departed, but a more or less reminiscent plate made to be fixed above the coffin. The closed eyelids are at the same time significant of a dead person. The upper extremities of the ears alone are indicated, the hair is drawn back off the forehead in a symmetrical manner, and the beard indicated by straight ridges radiating from below a very wide mouth. The whole is uncouthly and mechanically modelled, though not more grotesque than one of the gold masks from the Fifth Shaft Grave at Mycenae.¹

Since we have here a face of reduced dimensions—in contrast with the masks from royal tombs of Mycenae, which are of the natural size—we may suppose that it belonged to some one of lesser rank. But the analogy that nevertheless it affords points to a similar usage, and it conforms to the others not only as showing the relief rising from a flat border, but in the perforations on its margin. These are in this case visible near the four corners of the plate, and, again, near the middle of the upper border, and were doubtless made for the small nails by which it was tacked on to the wooden board. The lower surface of these holes, moreover, shows a slight pushing out, due to the downward thrust of the nail.

But the flat part of the plate presents a feature that has not been noted on any of the other gold masks. The corner perforations for the tacks in all cases just miss the clear impress of small bosses. There is every reason to conclude that these bosses represent the caps—probably of precious metal, such as those abundantly forthcoming in the Mycenae Graves—that covered the heads of nails already driven into the woodwork below, and forming part of the construction of the coffin.² Some traces of a black substance are visible, adhering to the lower surface of the mask, which seems to represent glue, such as has been recognized in the black substance on the lower surface of some of the gold ornamental plaques in the Shaft Graves.³

A large number of circular gold plaques, indeed, presenting embossed

¹ Stais, *op. cit.*, p. 54, Fig. 8 (as readjusted in the Athens Museum); Schliemann, *Mycenae*, p. 221, Fig. 332) in its original condition).

² Dr. Lunsingh Scheurleer, *Catalogus*, &c.,

p. 269, No. 574, has rightly observed these bosses and explained their meaning: 'klaarblijkelijk werden daarmee de koppen der nagels bedekt, waarmede de kist gesloten was.'

³ Stais, *op. cit.*, pp. 47, 48.

designs of butterflies, octopuses, and a variety of geometrical figures, show no kind of perforation round their circumference, and could only have been fixed by some adhesive substance.

In corroboration of the view that many of the thin gold roundels found in the Shaft Graves had been attached to the outer boards of wooden coffins, Dr. Stais compared the impressed disks with volute decoration, seen on the very late *larnax* or clay coffin found in a built Chamber Tomb at Artsa¹ in East Crete, and another with cruciform patterns within painted disks from Pendamodi.² To these, moreover, must be added the medallions with ornaments cut out in relief on late clay coffins, after the Cretan model, found in a Sub-Mycenaean Chamber Tomb at Assarlik. These have been rightly compared by Mr. E. J. Forsdyke³ with the gold roundels from the Shaft Graves; the radiating *vesica piscis*, formed by the intersection of two circles, which here recurs, is, in fact, a frequent motive of the Mycenae gold disks.

These comparisons with the disks on the Late Minoan and Mycenaean clay sarcophagi have certainly an illustrative value, but it is unsafe to take them too literally as presupposing an identical form of coffin for the Shaft Graves. There can be little doubt that the Late Minoan *larnakes* are in many cases almost literal reproductions of painted Egyptian coffers of New Empire date. Not only do they show a close conformity with current Egyptian types in their gabled roofs and feet,⁴ but at times they also present a certain conformity in painted designs.

Clay sarcophagi of simpler forms, however, go back to a very remote period in Crete. Their plastic origin is shown by their rounded corners and sometimes almost oval shape, and I have elsewhere suggested that—as in so many parallel cases—their prototypes may be found in the similarly shaped clay coffins of prehistoric Egypt.⁵ That they existed in the early bee-hive ossuaries of Southern Crete is proved by the discovery of the fragments of such by Professor Halbherr in the large *tholos* at Hagia Triada, and remains of numerous examples were also found in the rock-vault of Pyrgos, near Niru Khani, which had served the Early Minoan inhabitants as an ossuary of the same kind. That such coffins were also at times made of

¹ Xanthudides, 'Αρχ. Ἐφ., 1904, Pl. II (from Tomb B).

² Orsi, *Urne funebri Cretesi* (*Mon. Ant.*, i, 1890), Pl. I.

³ *B.M. Greek and Etruscan Vase Catalogue*, vol. i, part i, *Prehistoric Aegean Pottery*,

pp. 213-16 (see especially Figs. 302, 303, A. 1113, 1114).

⁴ Compare, for instance, Wilkinson, *Ancient Egyptians*, vol. ii, p. 200, Fig. 8.

⁵ *Palace of Minos*, i, pp. 125, 126.

wood is a fair presumption, and these, in the case of royal vaults, would naturally have been encrusted and overlaid with ornaments.

An essential feature of all these early coffins is that they were made for the purpose of holding contracted bodies, recalling the old Libyan custom of trussing those about to die, described by Herodotus.¹

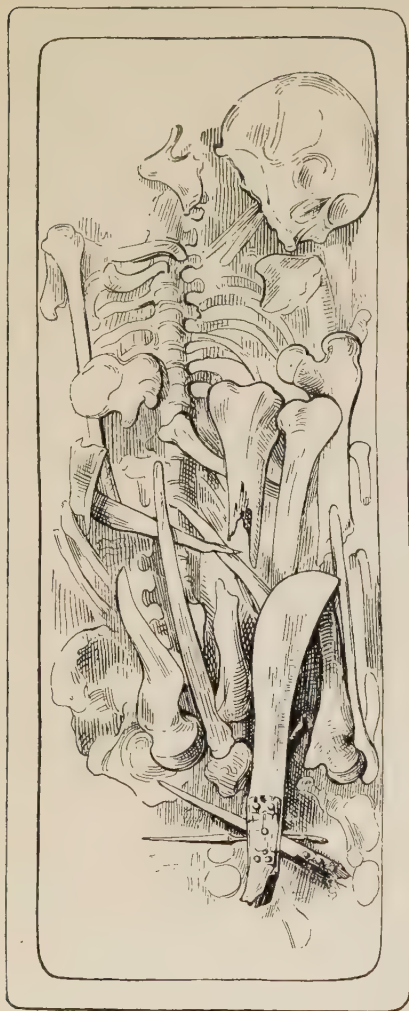


FIG. 5. VIEW OF INTERIOR OF CLAY COFFIN (CHAMBER TOMB 80, ZAËR PAPOURA) WITH SKELETON IN CONTRACTED POSITION.

The average outside measurement of the later *larnakes* is about a metre in length and slightly under half a metre in width. If we may assume that the coffins that have *ex hypothesi* contained the remains of those buried in the Shaft Graves were of similar dimensions, we shall find an easy explanation of some of the difficulties that beset Schliemann, who seems to have presupposed extended burials. Thus in one case he notes as a result of hasty burial that the skull of one body had been found resting against the knee-bones. But if we may assume that the skeleton had been contained in a wooden chest, this position is quite normal. A good comparison, indeed, is supplied by the contents of a clay *larnax* from Chamber Tomb No. 80, at Zafer Papoura, near Knossos, a sketch of which, taken as they lay in position on removing the lid, is reproduced in Fig. 5.² Here the back of the body is seen to be bent sharply up against the end of the clay coffin so that the head was in fact brought immediately over the place of the knees, one knee-cap lying beneath the nose.

The small size of the gold mask reproduced in Fig. 4 made it well adapted to be placed on the lid of a short wooden coffin containing

¹ Herod, *lib.* iv. 190.

² *Prehistoric Tombs of Knossos*, i, p. 79, Fig. 88 (*Archaeologia*, vol. lix).

a crouched body. The impressions of the rivet heads of the boards below preserved in this and another case supply, moreover, a fresh argument for regarding some, at least, of the Mycenae masks, presenting a similar flat margin with nail-holes, as having occupied the same position, possibly on somewhat larger chests.¹ But this does not exclude the possibility, urged by Dr. Karo,² that certain masks with perforations only at the ears were primarily intended to be tied round the muffled, and perhaps partly mummied, head of the deceased. It is indeed probable that during the period of the temporary disposition of the corpse—the 'lying in state' of the primitive kind referred to below—the mask was fastened in this fashion to the head of the corpse. When the final interment took place naturally it would have been placed on the coffin lid as a reminder, often conventional indeed, of the departed.

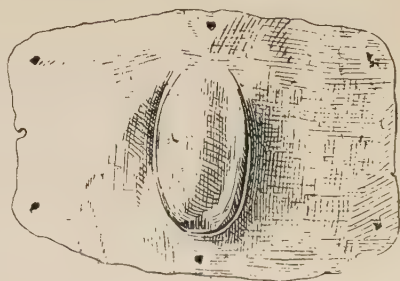


FIG. 6. ELECTRUM MASK FROM 'CYMBAL-PLAYER'S' TOMB, MULIANÀ (13).

In the exceptional case of the infants we find that there was not only a thin gold plate laid over the face but the whole body was covered in the same way. In one instance a separate piece of foil covered the child's eyes,³ recalling the *loupe* of the modern carnival masker.

The very late Minoan mask of electron (Fig. 6) found in a small bee-hive tomb at Mulianà in East Crete, and consisting of a nearly rectangular plate—without traces of the eyes and only a rude prominence representing the nose—was otherwise of the same class as the latter. It was formed of a broad, more or less rectangular plate with three rivet-holes on its lateral borders and one above and below at its centre, and was apparently designed to affix to a wooden coffin.⁴

Bands like these, only intended to cover the eyes and the centre of the face, have a special value as leading us back to the origin of the Minoan and Mycenaean mask supplied by the gold bandages found by Seager in an

¹ Dr. Karo (*Mitth. d. D. Arch. Inst., Ath. Abt.* xl, p. 137), indeed, cites in opposition to this view Prof. H. Knackfuss's remark that the flat margins of two of the masks show rifts due to the pressure of the overlying earth, which he considers would not have been produced had the margin been tacked on to a flat wooden surface. But the wood may have been entirely decayed at the time when the roof of the

chambers fell in, and the flattening out of the faces would produce this effect on their margin.

² *Op. cit.*, p. 137.

³ Schliemann, *Mycenae*, p. 199, Fig. 304.

⁴ This occurred in connexion with the crouched remains of a skeleton found on the floor of the vault. Another skeleton, that with the bronze cymbals, was found inside a painted clay bath adapted as a sarcophagus.

E.M. II tomb at Mochlos.¹ These bands—in two cases with punctuated indications of the eyes—must have been bound directly over the faces of the dead themselves by means of their terminal perforations, and there is here no question of coffins.

It may be a moot question how far such bandages may have been designed, in accordance with primitive ideas, to prevent 'over-looking' by the dead, or to protect the corpse itself from evil spirits. It might partly,

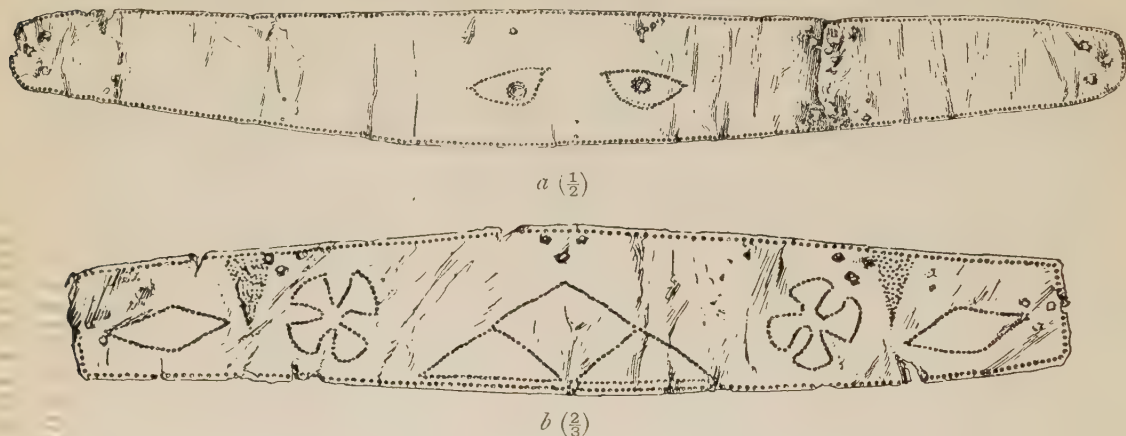


FIG. 7 a, b. FUNERAL 'EYE BANDAGES' OF GOLD, MOCHLOS.

again, be designed to hide the evidences of corruption in the prescribed period during which the body was exposed to view—a custom answering to the Homeric *πρόθεσις*. In the final stage of interment they might be left on the corpse itself or, in the alternative case, placed upon the coffin.

This custom of 'lying in state', together with other barbaric survivals, has always been specially conspicuous in the case of royal personages. The practice of Mycenae was, in fact, long afterwards kept alive by French kings, for whose lying in state wax masks were provided, taken from a mould of the face and naturally coloured, many of which were afterwards preserved in the Abbey of St. Denis. An entire artificial image was placed over the hearse of deceased English kings, made of wood or gesso, and clad in the royal robes. Specimens of these are preserved in Westminster Abbey.² The face of the best executed of these, Henry VII,³ is finely moulded in gesso, probably by an Italian artist, who clearly made use of a death-mask for his representation.

¹ Seager, *Mochlos*, Fig. 9, II. 3, II. 5.

Archaeologia, lx, p. 517 seqq.).

² See W. H. St. John Hope on the *Funeral Effigies of the Kings and Queens of England*,

³ *Op. cit.*, Plates LXI, LXII.

Gold Crown and Ornaments fixed to Coffins.

As to the detailed arrangement of the gold ornaments attached to the coffins it is impossible to obtain any certain knowledge. We may at least suppose that when gold masks were attached, they were in each case fixed to the extremity of the lid, above the place where the head would have lain. Professor Meurer,¹ indeed, from the Egyptian analogies that such an arrangement would suggest, has gone so far as to attempt an entire restoration of a woman's coffin from the Third Shaft Grave, in the form of a mummy case—a diadem, with pendent 'half-diadems', being placed above the breast. But the whole of Minoan tradition points to coffins of a shorter and less capacious kind.



FIG. 8. GOLD CROWN FROM THIRD SHAFT GRAVE (WOMAN'S), SET WITH DECORATIVE LEAVES: AS RESTORED.

The dome-shaped crown (Fig. 8),² set round with decorative leaves standing upright on its upper circumference, found in the woman's grave No. 3, was certainly ill adapted for packing on the head of the contracted body in a small chest. Rather we must suppose it to have been laid on the lid of the coffin like the turbans of deceased Turks at the present day.³ A still more convincing example is the type of crown with long pointed rays as reconstructed by Dr. Karo from the so-called 'half-diadems' from the First and Third Graves⁴ according to the analogy supplied by the tiara of the 'Boston Goddess'. A still closer parallel, as I shall hope to show elsewhere, is presented by what seems to have been the companion figure of a young god.⁵ A similar rayed crown was also worn by Minoan sphinxes.

¹ *Der Goldschmuck der mykenischen Schachtgräber* (*Jahrbuch d. Arch. Inst.*, 1912, p. 208 seqq.).

² Stais, *Collection mycénienne*, vol. ii (1915), p. 8, no. 1.

³ Karo, *op. cit.*, p. 184, no. 2, makes the comparison.

⁴ Karo, *op. cit.*, pp. 180-3.

⁵ I hope to publish this ivory figure in *Palace of Minos*, vol. iii.

Such decorative elements on the crowns, and masks like that of Schliemann's 'Agamemnon',¹ that seem actually to attempt a portraiture of the deceased may well, as in the case of analogous funereal records of medieval times, have never been intended to be hidden in the grave pit itself. It may be surmised that the wooden coffins themselves with their decorative plates were often set up on the floors of the chambers, as was so frequent in the case of the clay coffers or *larnakes* containing the mortal remains, from the close of the Early Minoan Age onwards.² The fringed borders of the Hagia Triada sarcophagus suggest that embroidered cloths were at times spread over the coffins.

The absence, in many cases, of pits within the bee-hive tombs itself suggests a usage parallel to that of which we have the evidence in the rock-cut chambers where the clay coffins were found ranged on the floors.

It is at the same time clear that many of the ornaments found in the Mycenae Shaft Graves were actually attached to the bodies. In this connexion it is useful to recall the gold bands actually found, according to Schliemann's statement, round an arm-bone³ and the gold mounting of the greaves found attached to a thigh-bone in Grave IV.⁴

Burials without Coffins: Grave VI, Exceptional Example.

So too, although there seems to be a fair presumption that many of the bodies found in the Shaft Graves were originally contained in wooden coffins, it is of course not necessary to suppose that they were in all cases so enclosed.

In the later discovered Sixth Grave, the contents of which are reconstructed in a Case of the Athens Museum⁵ as far as possible in the position in which they lay, no traces of carbonized wood seem to have been found. On the other hand, a skeleton is seen stretched out at full length on the

¹ The fact that there are in this case only perforations to the ears led Dr. Karo (*op. cit.*, p. 137) to suppose that this portrait mask had originally been tied round the head of the corpse. But it is tempting to believe, according to the suggestion already made, that, when the prescribed period of exposure was over, it may have been transferred to the lid of the coffin. The holes in the ears would have given sufficient attachment, and the absence of a margin round the mask made it undesirable to perforate part of the actual effigy.

² Clay coffins had contained some of the remains of the Early Minoan ossuary at Pyrgos, Crete. So, too, in the newly discovered cemetery of Mavro Spelio, Knossos, consisting of chamber tombs cut in the rock, and going back at least to M. M. II b. Some of the *larnakes* set on the floors are of Middle Minoan type.

³ Schliemann, *Mycenae*, p. 302, Fig. 459.

⁴ *Ibid.*, p. 230, Fig. 338.

⁵ Stais, *Collection mycénienne*, ii (1915), pp. 72, 73, Vitrine 50.

pebble flooring, while remains of a second, which it had obviously replaced, were heaped near to its skull, in a corner of the tomb.

This Grave, with the Second, is decidedly smaller and shallower than the others, and its N.W. corner is somewhat intersected by the inner line of the 'temenos' circle above. It may be taken, indeed, to stand in an exceptional position as regards the whole sepulchral group. The very fact that Schliemann failed to strike this tomb marks its 'eccentric' location.

This Grave is in many ways exceptional. It is the only one, as we see, in which the skeleton undoubtedly lay in an extended position. It is the only one with its axis E.-W., standing thus apart, like the other '*in situ*' grave found South of it. Here alone, too, we have distinct evidence of a succession of interments. Such may have occurred in one or other of the larger vaults, but their size and the deliberate arrangement within is best explained by the supposition that the burials in each case were multiple and made at one and the same time. The close and more or less regular arrangement of the pits within a limited space points, indeed, as already noted, to their having been constructed for a wholesale re-interment, on a particular occasion, of bodies transferred from other sepulchral vaults.

That they should have been transferred to this particular area, close outside the older acropolis wall, is explained by the fact that it had been already from time immemorial a local burial-place. Not only were several cist graves containing contracted bodies, in conformity with Middle Helladic or 'Hellado-Minyan' traditional practice, but the quantities of bones in the earth washed down over the graves and the occurrence of native pottery shows that the Shaft Grave interments had themselves been made at the expense of a part of the older cemetery.

The existence of Grave VI may be taken to show that this intrusive occupation had already begun at an earlier period. It is possible, moreover, that the 'Treasure' found immediately North of the Grave Circle may represent the contents of another ordinary 'pit-grave' of the same type. That the new form of sepulchre had also intruded itself on the South side of this area is shown by the discovery by the British School of the plundered grave of this kind,¹ also abnormally oriented, of the usual Minoan type, 2.07 m. long and 80 to 85 cm. wide—almost exactly answering to the proportions, for instance, of the 'Chieftain's Grave' at Zafer Papoura.²

The Sixth Grave, as has been shown, stands apart from the others.

¹ *B. S. A.*, xxv, pp. 55-7, and Fig. 14.

² Its dimensions are 2.06 m. long by 75 cm. wide, the grave itself, apart from the pit

above its roof, being 1 metre deep, as compared with 1.20 m. in the case of that beneath the later 'Granary'.

It is the grave of two individuals, one succeeding the other, and there is no ground for supposing that in this case there had been any transference from an earlier vault. On the contrary, the vessels of offering—including many of an indigenous character—were here preserved amply espaced in the position in which they had been placed, in a manner quite different from the huddled character of the other interments.

It is probable that in this case the later occupant of the Grave inherited the *peculium* of its earlier possessor, while at the same time preserving his own. Several of the indigenous vases found in this tomb, such as the Mainland equivalents of the Melian bird-vases, are shown by the evidence of the parallel remains in the 'Temple Repositories' at Knossos to be contemporary with the Cretan M. M. III *b*. A fluted gold cup presents the characteristic arcadings, shown from their imitations in fine polychrome ware to go back at Knossos well into the Second Middle Minoan Period.¹ Other examples of this archaic fluting on cups are known from the Shaft Graves, and all may be reasonably considered, in view of the Knossian evidence, to be among their earliest elements—going well within the borders of M. M. III. On the other hand, the date of the later interment can be approximately fixed by the one painted vessel found in the Grave that stands out as a Cretan import. This is an ewer which, while preserving a pure M. M. III tradition in its shape and the decoration of the upper part of its body, displays in its lower half the ceramic fashion of the beginning of L. M. I. Among the weapons is a sword of the 'horned' type in its early stage, which may be attributed to the same date, about the middle, that is, of the sixteenth century B. C.²

On the whole we must conclude that the early elements in this tomb run parallel with the earliest in the Shaft Graves. The Chieftain, therefore, here interred in the old native cemetery, was the contemporary of the Princes whose collected remains were *ex hypothesi* transferred from their original resting-places to be laid in the vaults excavated beside it at a somewhat later date. That the mortal remains of a scion of the conquering race should already have been laid here may have supplied an additional reason for the gathering round of the remains and relics of the representatives of other princely and royal families.

¹ See my *P. of M.*, i, pp. 243-5, and the comparative examples given in Fig. 183 *a*.

² In *P. of M.*, vol. ii, Pt. II (p. 357 seqq., &c.) I have given reasons for bringing down the full evolution of the L. M. I *a* style to

a somewhat later date than the actual beginning of the New Empire in Egypt (*c.* 1587 B. C.). As there shown, the 'post-seismic' phase of M. M. III *b* has to be allowed for.

Mycenae Shaft Graves *sui generis*.

The Shaft Grave type of sepulture itself was new on the spot and revolutionary in character. It is hard to understand the statement, more than once repeated in archaeological works,¹ that the pit-graves in Mycenae in general, with their walled sides, are evolved from the small cist-graves, or mere shallow pits at that time

in use in Mainland Greece—Minyan and Helladic—with their stone slabs and contracted skeletons. The Shaft Graves proper are *sui generis*, spacious vaults representing an enlargement of the plain pit form. The coffins containing crouched bodies form themselves a series parallel to the cists, inasmuch as they fulfilled an analogous function. But the pit burial with an extended skeleton, as we see it in the Sixth Shaft Grave, really corresponds with a Minoan sepulchral type of which

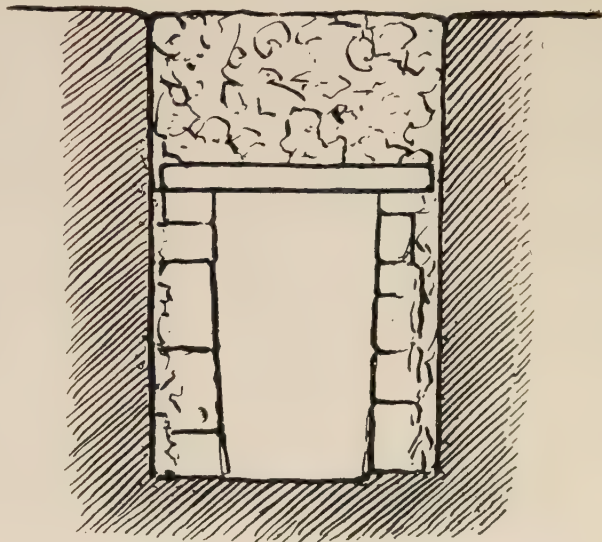


FIG. 9. SECTION OF SHAFT GRAVE IN ROYAL TOMB AT ISOPATA, NEAR KNOSSOS.

we have abundant evidence in the cemetery of Zafer Papoura and elsewhere, belonging to a date corresponding with the last Palace Period (L. M. II), and which like other forms of sepulture there found, such as the chamber tombs, may well go back to a considerably earlier time.² The type is also paralleled by the elongated graves covered by a slabbing above and often with walled sides seen in some of the bee-hive tombs or their adjacent chambers. Fig. 9 shows a section of the Grave sunk in the floor of the vault of the Royal Tomb of Isopata, with its interior, slightly battered walls, in this case of good masonry, and with the roof-slab (restored) resting on its upper face. A common feature in the Cretan graves appears, moreover, in the ledges frequently cut into the upper part of the shaft, above the level of the roof-slabs, to facilitate access. A good example of this with a broad ledge at one end is afforded by the 'Carpenter's Grave'

¹ e.g. by Mr. Wace, and by Dr. Karo, *op. cit.*, p. 133.

² The Chamber Tombs are now shown to go back in Crete to the M. M. II *b* Period.

(No. 33) at Zafer Papoura¹ (Fig. 10). This feature is also conspicuous in the Shaft Graves of Mycenae.

The vaults above the remains in the Shaft Graves were, as we know, originally void, the material found within being due, as Doerpfeld first pointed out, to the decay and falling in of the wooden beams that had supported the roof-slabs, and the copper end-casings of which have been preserved in the case of the Third Grave.² This, no doubt, caused a certain disturbance, involving the breakage and distortion of some of the buried objects. We have also to allow for the intrusion, in fallen materials above, of relics derived from much earlier Helladic cist-graves on the steep, as well as of very late Mycenaean objects such as the painted terra-cotta 'idols'. That a considerable interval of time had elapsed between the deposition of the interments and the falling in of the roofs was shown by a phenomenon of which we have repeated evidence in Schliemann's account—the covering, namely, of the sepulchral deposit with a layer of fine clay. This was not, as he imagined, a part of the funereal arrangement, but, in fact, represents a natural process with which all who have excavated vaulted tombs must be very familiar, the deposit,

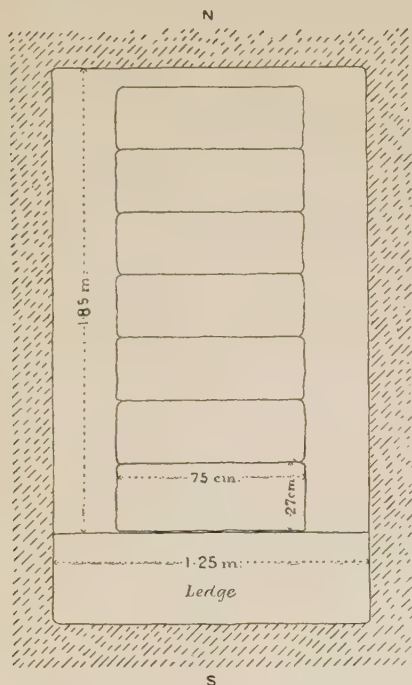


FIG. 10. PLAN OF 'CARPENTER'S' GRAVE, ZAFER PAPOURA, WITH SURROUNDING LEDGES.

namely, by means of the infiltration of muddy water from above, of finely grained laminations of clay. These laminations are seasonally produced and careful sections of the clay, as in the case of the Swedish glacial deposits examined by Baron de Geer, might be productive of some chronological results. In any case, this clay shroud informs us that from

¹ A. E., *Prehistoric Tombs of Knossos* (Arch., lix), p. 13, Fig. 8 b, and cf. p. 50, Fig. 47: See, too, *P. of M.*, ii, Pt. II, p. 557. I have there ventured to derive them from the Chamber Tombs of Middle Empire Egyptian cemeteries. The pits for interments found within the Chamber Tombs of Mavro Spelio (Knossos) also show an analogy with the mummy pits of the

Egyptian rock tombs, as seen at Beni Hasan.

² Schliemann, *Mycenae*, pp. 207, 208, and Fig. 323. He described them as 'four little boxes of stout sheet copper', and quaintly suggested that they had served as head-pieces for the dead, and perhaps also for the living. Cf. Schuchhardt, *Schliemann's Excavations*, p. 160, and Fig. 143.

the time of the deposit of the last dated objects in the tombs to the date of the concluding phase of the last Mycenaean Period to which the clay idols belong—with the one exception mentioned below—there had been no intrusion into the vaults.

Burials in each Pit contemporary: none later.

The almost inevitable conclusion, indeed, to which a general survey of the evidence leads is that there was no later burial. No one, I imagine, who has had to do with secondary interments in rich tombs can doubt that, had there been any fresh interments in these tombs, they would have been accompanied by a wholesale plundering of the precious relics within. In no age do the possessions of the dead seem to have been respected, and this universal rule held also among the Minoans and Mycenaeans. In one case, indeed, as Schliemann himself pointed out, there are clear cases of the descent of a tomb robber. Not only had the ornaments and other objects been removed from the middle body of Tomb 5, but the 'clay, with which the two other bodies and their ornaments were covered, and the layer of pebbles which covered the clay had been removed from this body'. Traces, moreover, were found of the hurried flight of the robber in the discovery in the stratum above, at different levels, of gold buttons and disks that seem to have formed a minor part of his booty. But the breast-cover, gold diadems, and sword, that, by analogy with the other interments, should have been found with the body were all missing. This exceptional depredation only brings into relief the generally intact character of the deposits.

Shaft Graves (except VI) simultaneously constructed and filled.

Again, it must be repeated, it is in the highest degree improbable that so many burial vaults—each, it would seem, belonging to some princely family—should have been constructed within such a limited space except owing to some special urgency. The rich remains here are quite unnaturally crowded together. At the same time the symmetry of the arrangements within the separate pits points to simultaneous interment. Bodies are grouped similarly oriented. In the case of the Second and the Fifth Grave, it is specifically recorded that the interments were placed at an approximate distance of three feet from each other.¹ The symmetrical arrangement of the bodies in Grave IV with three bodies arranged E. to W., two N. to S.² (Fig. 11) is also a good case in point.

¹ Cf. Schliemann, *Mycenae*, pp. 164 and 294.

² See Schuchhardt, *Schliemann's Excavations*, p. 222, Fig. 222.

The conclusion to which all this points, that these mortal remains of the Mycenaean princes had been transferred at one and the same time from their original resting-places, also fits in with other phenomena with which we have to deal. Such a transference would itself have been greatly

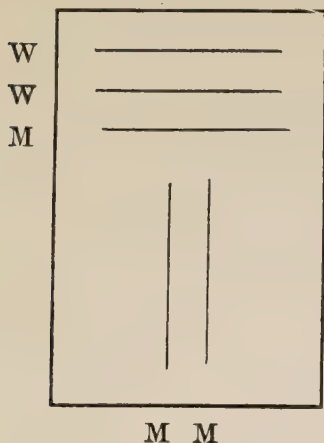


FIG. 11. ARRANGEMENT OF BODIES IN GRAVE IV. (M. = MAN; W. = WOMAN.)

facilitated if the bodies themselves had been previously preserved in wooden chests to which part of their associated ornaments were actually attached. At the same time, the shifting over from one sepulchral vault to another would almost inevitably have entailed some loss or breakage. If we may suppose that the great beehive structures, from which, *ex hypothesi*, the mortal remains were removed, continued to be in use for memorial rites, it may readily be believed that certain objects, such as, for instance, heavy stone jars, might have been left in their original resting-places. Some fragments may well have been lost in the process of transference and some minute objects might have escaped notice on the floor of the vault or have been swept into its crannies. The

continual search for objects of precious metal inside the great *tholoi*—renewed, no doubt, at intervals through all later times—would, it is true, have removed most of these. But it does appear that a certain number of fragments of the earlier sepulchral ornaments found their way into chinks and crevices, and the remains of some thin gold repoussé ornaments which have a special importance in the present connexion will be referred to below.

A whole armoury of bronze weapons was found in the Shaft Graves. In addition to spear-heads and daggers, remains of at least seventy bronze swords were collected in Grave IV,¹ where there were three men's interments. In Grave V, where three men were also buried, over seventy-five were found.² Such accumulations of weapons would naturally point to much more spacious sepulchral surroundings. A custom may well have arisen for Mycenaean Chiefs to deposit their weapons in such great 'mausolea', which—as we know by the analogy of the cult objects placed beside a warrior's grave sunk in the floor of a rock-chamber, the Tomb of the Double Axes near Knossos—were also heroic shrines.

¹ Karo, *Schachtgräber von Mykenai*. Compare Schliemann's statements, *op. cit.*, p. 219, and p. 278.

² *Op. cit.*, p. 307. More than sixty entire swords were found.

It is quite unnecessary to suppose that the interments of the Mycenaean Shaft Graves in their original form were of a uniform character. The abundant evidence that we possess in the cemeteries of Knossos shows that, not only were there different classes of sepulture, such as shaft graves, pit-caves, and chamber tombs, in use at the same time in the same cemetery, but that burial in pits coexisted with the deposition of the remains in coffins or sarcophagi placed on the floor of the same vault.

**Date of Ceramic Contents: M. M. III *a*
to L. M. I *b*.**

The latest painted clay vessels found in the Shaft Graves belong to the later phase *b* of the First Late Minoan Period, and were all found in Grave I. They illustrate a characteristic form of foliated decoration derived from the 'Sacral Ivy',¹ amongst examples of which the ewer Fig. 12 must take an early place. The pattern on this with its rayed 'brittle stars' bears a close resemblance to that of some of the fine amphoras from Nestor's Pylos (Kakovatos). Other vessels from this tomb suggest a somewhat later phase of this style. One bowl shows a degenerate design of argonauts characteristic of the then prevalent 'marine' style. Of special interest is the appearance of a motive derived from the double-axe designs so frequent on the pottery of the earlier part of L. M. I in which one would suppose the artist had had rather in view the two valves of a *unio* or mussel, with the *byssus* or ligaments for attachment seen above and below. This degeneration also appears on some Cretan examples of the L. M. I *b* style. As we now know from a series of contemporary Egyptian finds, the fabric of vases of this Cretan style—L. M. I *b*—roughly covers the period occupied by the long reign of Thothmes III (c. 1501–1447 B. C.), and may therefore be referred to the first half of the fifteenth century B. C. In Graves II, III, V, and VI clay vases occurred—either imported or close local copies—belonging to the L. M. I *a* style, and dating, approximately, from the latter half of the sixteenth century.

On the other hand, it is evident that the L. M. I *b* style, which in Crete



FIG. 12. PAINTED EWER WITH 'IVY-LEAF' MOTIVE. FROM THE FIRST SHAFT GRAVE, MYCENAE. ($\frac{1}{4}$).

¹ See on this, *P. of M.*, ii, p. 478 seqq.

immediately precedes the fully developed 'Palace style' of Knossos (L. M. II), showed a tendency to survive in a somewhat degenerate form on the Mainland side. The tradition there is still Minoan—and indeed the intrusive native forms are now at a minimum—but we have to do with what may be

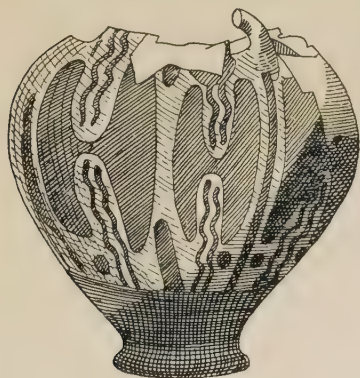


FIG. 13. PART OF VASE FROM GRAVE I, SHOWING BIVALVE-LIKE DEGENERATION OF DOUBLE AXE TYPE.

called a colonial development, the product of Mycenaean potters, whose handiwork we must clearly recognize in certain pots from the First Shaft Grave, such as that already referred to with the degenerate octopuses (Fig. 13).

The fact that the latest ceramic elements found in the Mycenae Shaft Graves fit on to this 'colonial' phase is itself of great significance. For it stands in relation to a vast mass of evidence, showing that at this particular epoch a great break occurred in the history of the bee-hive tombs of Mainland Greece. Not only at Mycenae itself, as is well illustrated by the 'Aegisthos Tomb', but in other cases, such as the Argive Heraeion Tomb, and those of Vapheio and of the Messenian Pylos as well as that of 'Nestor', a deposit of pottery of this class, including some of its later outgrowths, is succeeded by the evidences of a long void, only broken by a late reoccupation at the very end of the Mycenaean Age.

We may infer that at the epoch marked by the last elements in the Graves some danger was impending that may well have led to the reinterment within the shelter of the Acropolis walls such as is here postulated.

As to the higher limits of the objects contained in the Shaft Graves the data are very uniformly diffused throughout the whole group. Sherds that may be attributed to the native Middle Helladic III style seem to have occurred in all the tombs. In addition to this have to be reckoned the painted sherds of the kind found in Graves IV and V, which, though they do not absolutely correspond with any Cretan fabric, must still be regarded as belonging to the Minoan class (Fig. 14). The remains of a large jar from Grave IV¹ show coiled sprays like those that occur on an early M. M. III basin, and the contour of its rim is also characteristic of that period. The survival of polychromy that we here see points at the same time to the

¹ Furtwängler, *Mykenische Thongefässe*, Pl. VI, 30, 31, and see *Palace of Minos*, i, pp. 598-600, and Figs. 439, 440, c, e.

earlier M. M. III phase, *a*. A fragment of tortoise-shell ripple ware illustrates a normal fabric of the fine early class that goes back to the same epoch. This fragment, also from the Fourth Grave,¹ is of undoubted Cretan fabric,



FIG. 14. PAINTED SHERDS FROM FOURTH SHAFT GRAVE (*a, b, c, d, e, f*, AS ARRANGED FROM LEFT TO RIGHT).

and must be regarded as an import of not later date than the last part of the seventeenth century B. C. The special parallelism noteworthy in several cases between the Shaft-Grave² pottery and that found in the Temple Repositories³ at Knossos is enhanced by the recurrence of similar imported

¹ *Myk. Thongefässe*, Pl. V, 29.

² See *P. of M.*, i, p. 600, and n. 2.

³ e.g. the painted jar from Grave VI.

Furtwängler, *op. cit.*, Pl. XI; *P. of M.*, i, p. 600, Fig. 441.

forms of Melian 'bird-vases', belonging to the Third Middle Cycladic Period in both deposits.¹ The same comparisons extend to the objects in faience, and there can be little doubt that the specimens found in the Mycenae tombs came from the Palace factory at Knossos. The faience inlays of a draught-board, found in the Fourth Shaft Grave, show the same forms and decoration as fragments of similar inlays from the Western Temple Repository.

Metal Vessels similarly dated.

The vases in precious metals repeat the same story. It has been already noted that cups with arcaded flutings represent a style of decoration already imitated in the finest M. M. II polychrome ware. Pedestalled goblets, such as the plain one-handled cup from Grave IV,² that with the embossed lions at a flying gallop from Grave V,³ and that with two handles terminating in dogs' heads from the neighbouring 'Treasure',⁴ are the direct predecessors of the silver⁵ and bronze⁶ vessels, remains of which were found in the 'Royal' and other tombs at Knossos of the beginning of the Late Minoan Age, and of those, apparently both of gold and silver, seen on the Camp-stool Fresco of the Palace. The example from Grave IV with a succession of rosettes round its bowl⁷ supplies the prototype of a series of pedestalled clay cups with painted rosettes that characterized the L. M. II Period at Knossos, and survive, with degenerate imitations of the same decoration, on a later family of cups both in Crete⁸ and on the Mainland.⁹

¹ See *P. of M.*, i, p. 557, and Figs. 404, 405.

² Schliemann, *Mycenae*, Fig. 343. Dr. Karo, indeed (*Die Schachtgräber von Mykenai*, p. 211), from the 'straighter walls of the cup and agreeably posed foot', compares them with the best polished yellow Early Mycenaean ware, and considers therefore that it represents a native Helladic form. But the handle and its studs closely resembles that of the silver pedestalled goblet from the 'Royal Tomb' at Isopata, and the connexion with the yellow ware may well be the other way about.

³ Schliemann, *op. cit.*, Fig. 477.

⁴ *Op. cit.*, Fig. 528.

⁵ Parts of a silver vase of this type were found in the Royal Tomb at Isopata (A. E., *Prehistoric Tombs of Knossos*, i, p. 155, Fig. 134).

⁶ A pedestalled bronze cup was found in the Tomb of the Tripod Hearth, *op. cit.*, Pt. II, Pl. LXXXIX, n.

⁷ Schliemann, *op. cit.*, Fig. 477.

⁸ Compare, especially, a cup from Milato (L. M. III b), A. E., *Prehistoric Tombs, &c.*, p. 97, Fig. 106, m.

⁹ e.g. Tiryns (Nauplia Museum). The lily ornament seen on other parallel cups of the last Palace period (L. M. II) at Knossos also reappears on the Mainland types. The so-called 'budding crocus' motive seen at Korakou (C. W. Blegen, *Korakou*, p. 55, Fig. 73, Pl. VI, 2) and elsewhere is really derived from the traditional inflorescent palm-tree motive of Knossos (see my Comparative Table, *P. of M.*, ii, Pt. II, p. 496, Fig. 301). The correspondence both of form and decoration is conclusive as to the Minoan tradition.

They also occurred at Troy.¹ In a handleless shape pedestalled cups are of high antiquity in Minoan Crete, being already imitated in the early mottled ware of the E. M. II Period.

—Cups of the Vapheio type—which occur in the Shaft Graves both in their simple form and in the compound shape seen in the ‘Cup of Nestor’—go back in Crete to the Middle Minoan Period. Cups, indeed, like the silver beaker with gold and niello inlays, presenting the characteristic handles of this class, were already imitated in clay by the beginning of that period.²

On the other hand, the gold cup with a pronouncedly carinated outline and ‘high swung’ handles from Grave IV³—whether actually from the hands of Minoan goldsmiths or not—points to exotic models. It is the lineal successor of the ‘kantharos’ type already found, both in metal-work and in imitative polychrome ware, among Cretan fabrics of the M. M. I Period.

This type stands in evident relation to a similar class of vessel that recurs in clay—its original medium—in the second City of Troy.⁴ The Troadic relations of these ‘keeled’ cups, like that from Grave IV, are not less well marked; indeed, from the North-East Aegean centre they seem to have had a very wide European range, a sporadic offshoot even reaching Britain. In the present connexion, however, it is to be specially noted that the simple form here seen is of repeated occurrence in pottery of the Minyan class, both light and dark. Specimens of these, indeed, of indigenous fabric were found in Grave IV itself,⁵ and another good example in Grave VI.⁶ ‘Argive Minyan’ cups are found of the same class.⁷

It is at the same time to be observed that no vessel was found in the Shaft Graves perpetuating the tradition of the ‘sauce-boat’ type, illustrated in clay by Early Helladic, Cycladic, and Early Minoan examples, and of which a gold example from Arcadia exists in the Louvre.⁸

Whether or not the form of the vessel was at times influenced by native Hellado-Minyan pedestalled bowls may be left an open question.

¹ Schliemann, *Atlas*, &c., p. 105, Fig. 2311.

² See A. E., *P. of M.*, ii, Pt. II, p. 635, Fig. 399, c, taken from Miss Edith Hall’s *Excavations in Eastern Crete: Sphoungaras*, p. 47, Fig. 21.

³ Schliemann, *op. cit.*, Fig. 339.

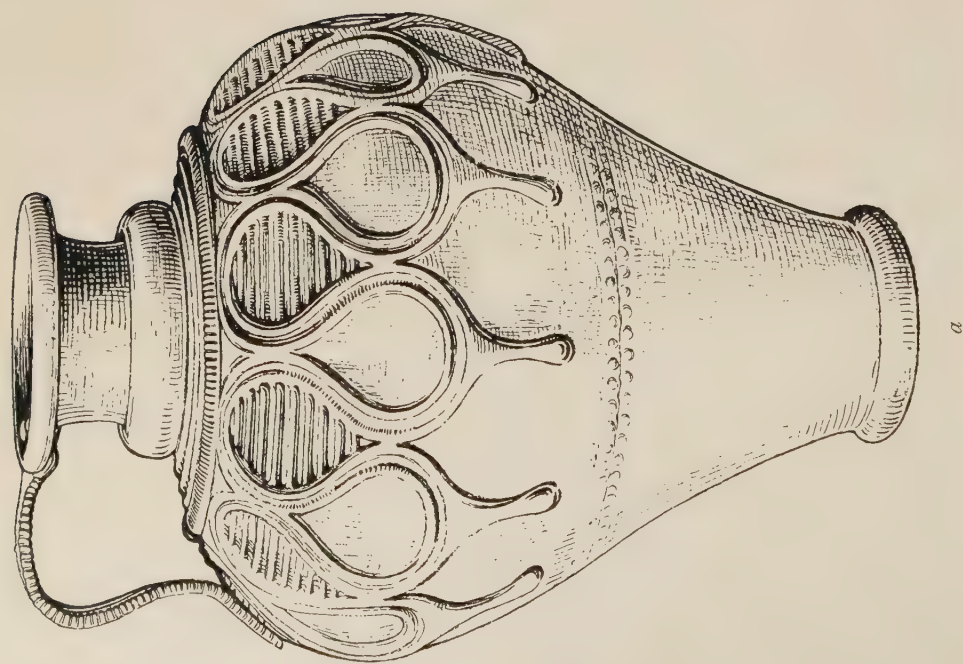
⁴ See on this *P. of M.*, i, pp. 191, 192, and Fig. 139.

⁵ Furtwängler und Loeschcke, *Mykenische Vasen*, Pl. V, 22, Pl. VI, 23.

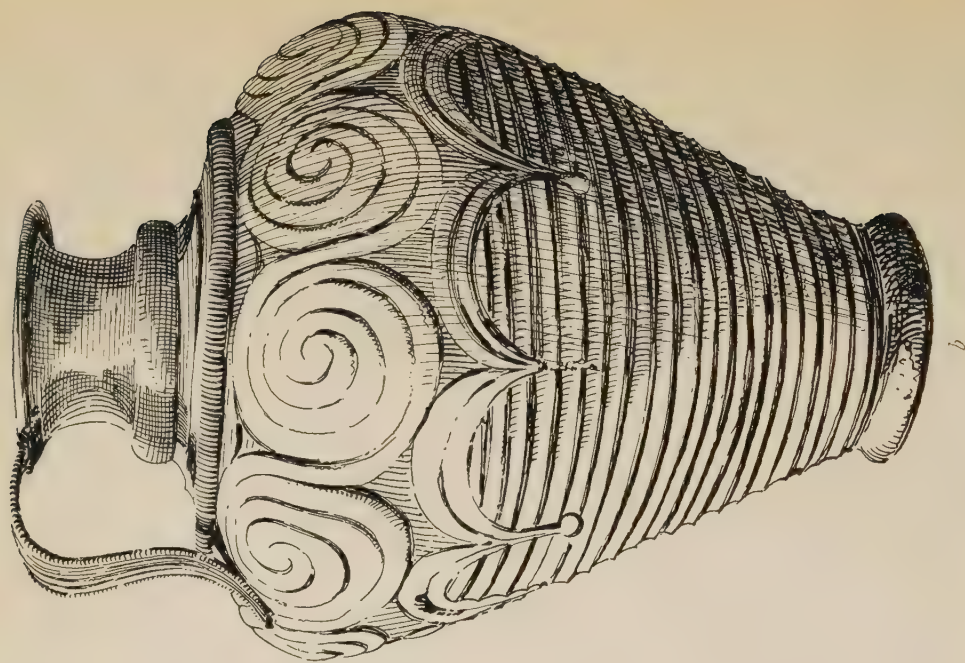
⁶ *Ibid.*, Pl. X, 48.

⁷ Vollgraf, *Bull. de Corr. hell.*, 1906, p. 17, Fig. 16 (Argos), and cf. Forsdyke, *J. H. S.*, xxxiv (1914), p. 130 seqq.

⁸ See on this especially Prof. V. G. Childe, *J. H. S.*, xlv, 1924, pp. 163, 165, and Fig. 1. Mr. Childe cites clay vases, E. M. I–III



a



b

FIG. 15 *a*, *b*. BRONZE EWERS OF SIMILAR FABRIC FROM KNOSSIAN TREASURE-HOUSE (*a*) AND FIFTH SHAFT GRAVE, MYCENAE (*b*).

The bronze vessels found in the Shaft Graves in almost every case present a practical identity with those of Minoan Crete. The finest of all, the gold-plated ewer from the Fifth Shaft Grave,¹ here drawn fully restored (Fig. 15, *b*), shows such correspondence in its fluted decoration with a bronze ewer from the North-West Treasure-House at Knossos (Fig. 15, *a*) that we may suppose it to have been made in the same palatial *atelier*. It may be referred to the transitional M.M. III *b*–L.M. I *a* phase. A gold-plated silver bowl, found in the same Grave, bears a foliated decoration very closely resembling that of a bronze basin from the same palatial hoard at Knossos.² The bronze tripod cauldrons also correspond with those of the Knossian deposits of the same transitional age.

One exception, indeed, there is. This is the large cauldron from Grave III, the upper plate of which presents a concave outline, thus recalling Italian types. Its general Northern affinities have been rightly pointed out by Dr. Karo,³ who regards it as an important indication of Mainland influence. But, in the entire absence of any Hellado-Minyan types of this kind, the possibility that, like the halberd described below from Grave VI, it may represent an intrusive object due to Adriatic commerce cannot be excluded.

Jewellery and Decorative Motives: Minoan Origins.

When we turn to the jewellery and to the decorative designs on gold plates and roundels we are again compelled to seek the antecedent stages of the forms and motives in the early remains of Minoan Crete.

It is now possible to trace back the recurring motives of the Mycenae jewellery to the simple combinations of C, S, and J scrolls that appear on a whole series of early Cretan seal types⁴ (Fig. 16). It will be seen, moreover, that the correspondences are not simply of a general character, but extend to details of coincidence such as the coupling of the S-scrolls with the tendril-pattern. The triquetral and swastika motives will also be seen to have a much earlier history on the Cretan side (Fig. 17).

In spite, moreover, of the considerable interval in time between the

found near Gournià (Boyd-Hawes, *Gournià*, p. 56, and Fig. 56), and a stone vase from Tomb VI at Mochlos (Seager, *Mochlos*, Pl. VI). Cf., too, de Ridder (*Cat. sommaire des bijoux du Louvre*, Pl. VI), and Karo, *op. cit.*, p. 217.

¹ For the first time fully restored in the drawing executed for me by Monsieur E. Gilliéron, fils, *P. of M.*, ii, Pt. II, p. 646, Fig. 411, *a*,

where it is set beside the Knossian ewer.

² See *ibid.*, p. 639, Fig. 403.

³ *Die Schachtgräber von Mykenai*, p. 203; he cites Hoernes, *Urgeschichte der Kunst*, 2nd ed., p. 267, and Schuchhardt, *Alteuropa*, p. 288, Fig. 259.

⁴ See my detailed account in *P. of M.*, ii, Pt. I, p. 195 seqq., and Figs. 105–6 here reproduced.

Mycenae jewels and those discovered by Seager in E. M. II and III tombs at Mochlos, a great family resemblance is perceptible between the two groups. The wealth of such relics in the tombs of what after all can have been little more than a small provincial settlement of East Crete is itself astonishing. The correspondence, moreover, in various categories of gold objects strikes the eye. At Mochlos we see roundels and crosses,¹ leaves and flowers, bands and bosses of gold sheeting: if not the actual death-masks, at least gold eye-bandages for the dead that may be legitimately regarded as their ancestral representatives.² Many of the most characteristic contents of the Mycenae tombs are here foreshadowed. Among floral forms we recognize a stellate type—the marguerite—well represented in the later series.³ It is only by chance indeed that the Early Minoan type of gold lily does not also recur in the Shaft Graves. As a matter of fact it is found in the slightly later Mycenaean *tholos* tombs at Volo and Dimini.⁴ On the diadems of Mycenae are constantly repeated conventional rosettes; on a band from Mochlos we see the dotted outlines of two plain wild roses, here, as elsewhere, shown with four petals.⁵ Even the embossed lion's mask of gold foil⁶—probably destined to cover some small carving in woodwork—from the oldest of the Mochlos interments, anticipates in miniature the larger versions of animals' heads in precious metals, such as the gold lion's-head rhyton of Grave IV at Mycenae.

Of indebtedness to the Minoan tradition of Crete the typical gold signet rings of Mycenae, with the bezel set at right angles to the hoop, themselves afford some of the best examples. The type, as I have elsewhere shown,⁷ really originates in a form of bead-seal that appears in Crete towards the close of the Early Minoan Age, with the signet-plate set longitudinally on a tubular bead. The signet-rings were thus made originally for suspension, which accounts for the fact, hitherto unexplained, that in many of them the hoop is too small for the ring to have been worn on the finger.

¹ Compare the cross-shaped gold ornament of plain 'orthodox' shape. Seager, *Mochlos*, Fig. 10, 2, and p. 32, with that from the Third Shaft Grave, Schliemann, *Mycenae*, p. 194, Fig. 295.

² See above, p. 14, and Fig. 7 *a*, *b*.

³ Compare Seager, *op. cit.*, p. 72, Fig. 42 (cf. *P. of M.*, i, p. 98, Fig. 69, XIX. 11), with the star-flowers on the embossed gold plate

from the Fourth Shaft Grave (Schliemann, *op. cit.*, p. 253, Figs. 387–90).

⁴ See *P. of M.*, i, p. 96, Fig. 68, and compare Seager, *Mochlos*, p. 32, and Fig. 10, ii. 29, *a*.

⁵ Compare Seager, *op. cit.*, p. 28, Fig. 9, ii. 3, and p. 29, Fig. 9, ii. 11 *a*.

⁶ *Op. cit.*, p. 55, Fig. 25, vi. 28.

⁷ *The Ring of Nestor*, pp. 47, 48, and see *P. of M.*, iii, § 74.



a

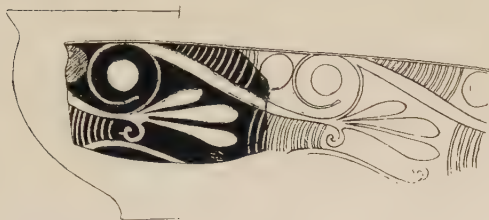


b



c

EARLY MINOAN SEALS, SHOWING S-SCROLLS AND TENDRILS.



d

M. M. II POLYCHROME BOWL.



e

GOLD PLATE, SHAFT GRAVE V



f



g



h

GOLD EMBOSSED PLATES FROM SHAFT GRAVES.

FIG. 16. SCROLL AND 'TENDRIL' PATTERNS, CRETE AND MYCENAE.



a



b



c



d



e



f



g

FIG. 17. TRIQUETRAL DESIGNS ON MINOAN SEALS, *a, b, c, f*, AND MYCENAEAN DISKS, *d, e, g*.

The Shaft-Grave Weapons; Antecedents equally Cretan.

It is equally clear that, with the exception of two abnormal forms, the bronze weapons found in the Shaft Graves represent Minoan types of which the simpler ancestral forms are to be found in Cretan soil.

Some of the bronze swords, such as that from the Fifth Shaft Grave shown in Fig. 18 with an incipient flange, are of very early type, and stand

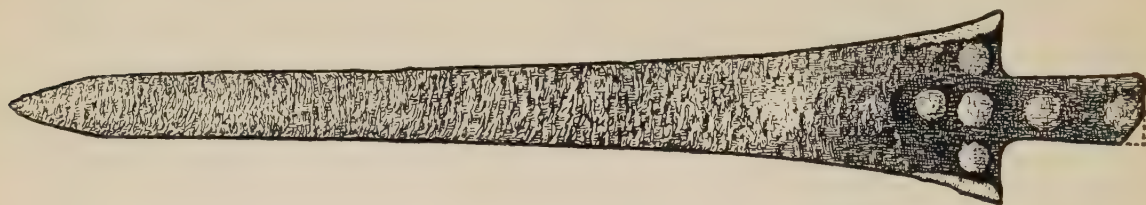


FIG. 18. BRONZE SWORD WITH GOLD PLATED STUDS FROM SHAFT GRAVE V.
(LENGTH C. 52 CM.)

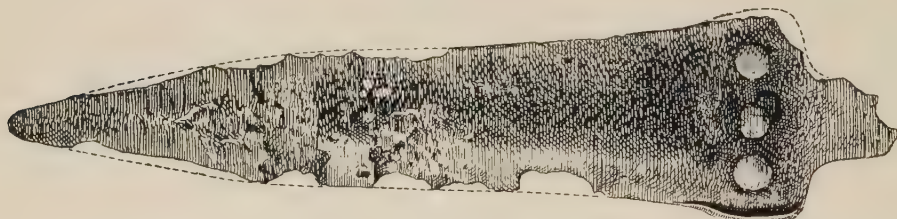


FIG. 19. BRONZE DAGGER BLADE FROM SMALLER *THOLOS* AT HAGIA TRIADA
(M. M. II a).

in relation to dagger forms such as those of Chamaezi that go back to the very beginning of the Middle Minoan Age. Here the shoulders have become more angular and are well on their way towards the origin of the later 'horned' type. An intermediate form with less angular shoulders is seen in a dagger-blade, with similar short flanges at the upper extremities of the blade, from the smaller *tholos* at Hagia Triada¹ (Fig. 19) and the closely parallel example from Lasithi with engraved designs upon its blade of a boar-hunt and of a fight between two bulls.² The Hagia Triada evidence indicates that this type, which stands in such a near relation to the earliest Shaft Grave form of broad-sword, had been already evolved in the earlier phase of M. M. II³—in other words, by about 1900 B. C. On the other hand, the engraved designs of the Lasithi specimen—originally filled, no doubt, with some inlay—supply the immediate antecedent stage to the magnificent

¹ *P. of M.*, i, p. 195, Fig. 142, c.

² *Ibid.*, p. 718, Fig. 541, a, b, and p. 719.

³ See *ibid.*, p. 719.

engrailed work of the Mycenae blades. Of the early supremacy of this peculiarly Cretan art no proof can be more convincing than the fact that the engrailed scene of the lion pursuing a bull, both at a flying gallop, on the dagger-blade of Queen Aah-hotep's son Aahmes¹ (c. 1587-1562) reflects in all its details—including the rocky landscape introduced above—the Minoan style, and was probably, indeed, executed by a Cretan artist.

The sword-blade seen in Fig. 18, with square-cut shoulders and a ribless blade, may be regarded as the earliest form represented among these Mycenae swords. A sword of this class is also often exceptionally short (about 52 cm.), another circumstance that weighs in favour of a relatively early date. This triangular type also appears on the early stelae.

The gold casing of the upper part of an advanced specimen of this class is given in Fig. 20. It is decorated with a squared pattern consisting of a decorative development of the 'Swastika' or *Crux gammata*, much recalling a class of Egyptian ceiling-patterns.²

This earlier variety, moreover, seems to be often distinguished by a special class of pommels. The lower part of the pommel below the rim of the boss here assumes the shape of a truncated cone reversed, as seen in Fig. 21, *a*. The gold-plated hilts, moreover, with which this particular form of pommel is associated are specially rich in spiraliform decoration of the Middle Minoan class.³ The other Shaft-Grave type, of hemispherical form, is shown in Fig. 21, *b*.

The slight recurving of the shoulders visible in Fig. 18 illustrates a tendency which produced the well-marked type of horned sword frequent

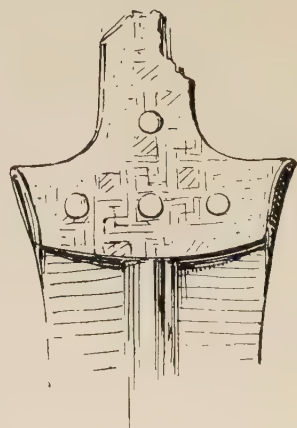


FIG. 20. GOLD CASING OF UPPER PART OF SWORD FROM SHAFT GRAVE, MYCENAE.

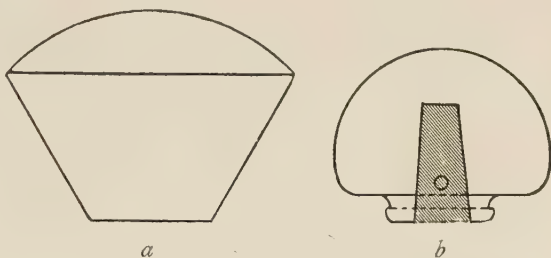


FIG. 21. TYPES OF POMMEL: SHAFT-GRAVE SWORDS.

¹ See *P. of M.*, i, p. 715, Fig. 537. It is there spoken of as the dagger of Queen Aah-hotep herself, in whose grave it was found.

² Compare Wilkinson, *Ancient Egyptians*, vol. i, Pl. VIII, and p. 363; and Jequier, *Décora-*

tion égyptienne, plafonds et frises, &c., pp. B, 14, Figs. 4 and 6 (XIIth to XXth Dynasty).

³ e.g. Schliemann, *Mycenae*, p. 270, Fig. 430. Compare the early patterns shown in Fig. 16, above.

in the early part of the Late Minoan Age. A Shaft-Grave specimen of this type, however, presents on its median rib a form of the 'Sacral Ivy' motive very characteristic of M. M. III (Fig. 22).¹

The more usual form of the Shaft-Grave sword is that shown in Fig. 23. It has somewhat sloping shoulders, and though, like the preceding, doubtless

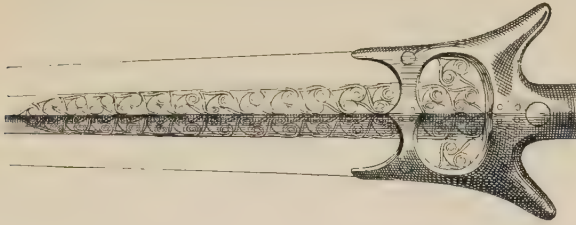


FIG. 22. UPPER PART OF SWORD WITH HORNED HILT, ENGRAVED WITH SPIRALIFORM PATTERN OF 'SACRAL IVY' TYPE.

derived from an earlier dagger type, illustrates a further development of the flange, which here continues well up the tang. It may be regarded as the immediate predecessor of the 'cruciform' type characteristic of the closing Age of the Palace at Knossos. This

form of sword is always accompanied with a marked median ridge.



FIG. 23. SHAFT-GRAVE TYPE OF FLANGED BROAD-SWORD. ($\frac{1}{5}$).

The rapier types with their midribs—the upper part of one of which is shown in Fig. 24, *b*—which are also abundantly represented in the Shaft Graves, stand in an equally close relation to Cretan forms. The remains of the hilt-plates, with their kidney-shaped openings, are shown in Fig. 24, *b, c*.² The tang itself is generally short, with a single riveting-stud, as in *b*, but *c* exhibits a longer variety with four rivets.

The part of the blade usually left uncovered is adorned in Fig. 24, *d*, with a pair of triquetral spirals, in another case (*e*) quadruple groups are seen on the covering plate. The spiraliform decoration of the blade recalls that which accompanies the midrib in the finest examples of swords of the 'horned' and 'cruciform' types from the Cemetery of Zafer Papoura, belonging to the Last Palace Period of Knossos. This correspondence with the sword decoration of Minoan Crete supplies another link in the long chain of connexion.

It is further of special interest to note that the elaborate plait-work

¹ See *P. of M.*, ii, Pt. II, pp. 481, 482, and Fig. 288, *b*.

² Cf. Sophus Müller, *Ældste Bronzefund i*

Sudøstliche Europa; Mykenæ-Gruppen (Aarbøger f. Nordisk Oldkyndighed, 1882), p. 283, Fig. 1, p. 285, Figs. 7, 8, 9.

decoration seen on a section of a rapier stem (Fig. 24, *a*) is a characteristic motive on stone vases of the M. M. III Period, including, again, examples associated with King Khyan's alabastron. But this fact acquires a new

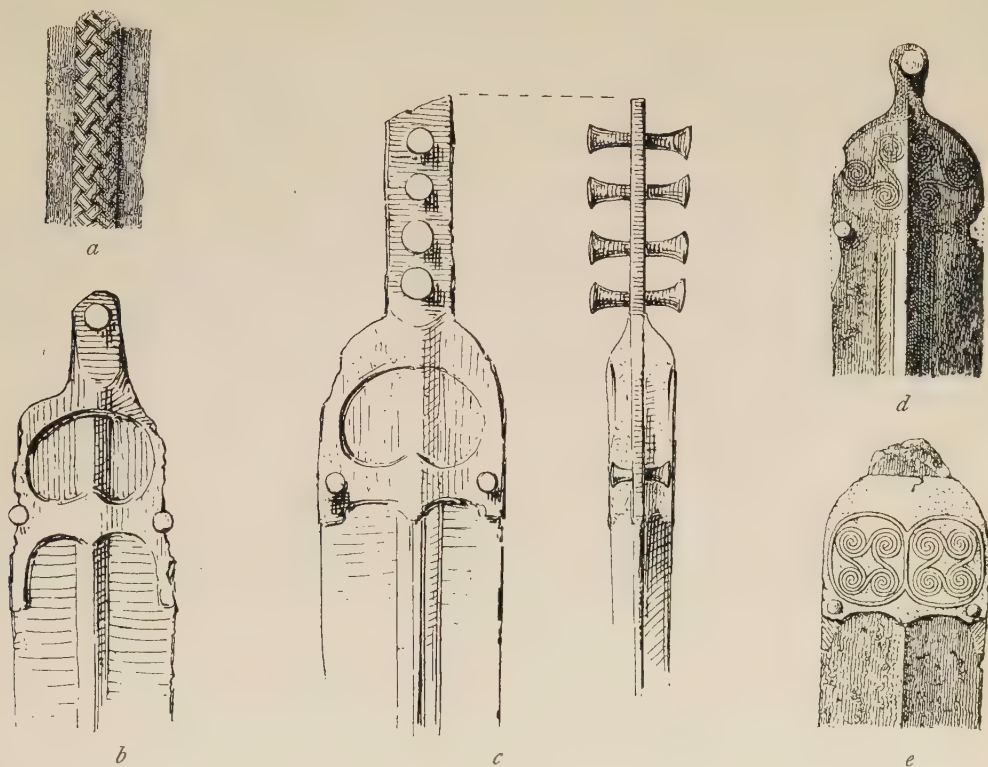


FIG. 24. PARTS OF SWORDS OF RAPIER TYPE: SHAFT-GRAVES, MYCENAE.

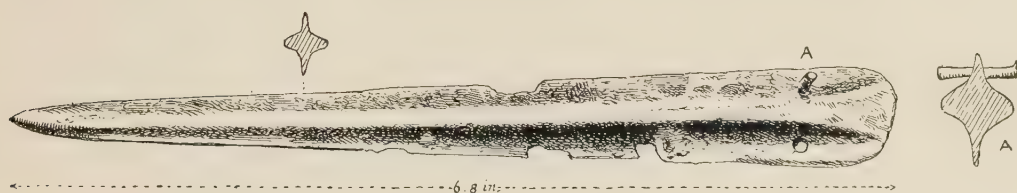


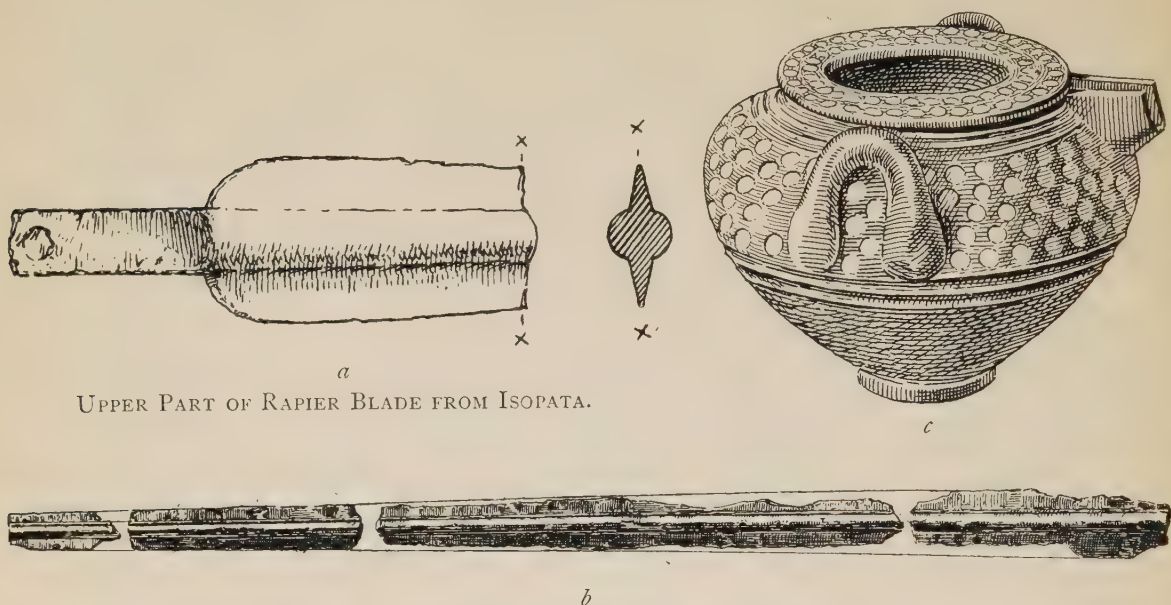
FIG. 25. BRONZE DAGGER FROM PSYCHRO CAVE, CRETE, PROBABLY M.M. III.

interest from the hitherto unregarded circumstance that the same type of decoration also occurs on an architectural relief—apparently a fragment of a capital—from the façade of the 'Tomb of Clytemnestra' at Mycenae.

The strongly relieved stems of these rapiers are identical in their general conformation with that of a Cretan dagger from the Psychro Cave¹

¹ One of the specimens obtained by me from the cave where the Libation Table was found, from the votive deposit in the 'atrium' of the cave now in the Ashmolean Museum. The blade

illustrated in Fig. 25. This in turn seems to supply the antecedent stage to Minoan rapier types parallel with those of the Shaft Graves (Fig. 26 *a, b*). The examples here shown, belonging to what was clearly an early sepulchral deposit that gave the first clue to the Isopata cemetery, were happily dated



UPPER PART OF RAPIER BLADE FROM ISOPATA.

PARTS OF BLADE OF ANOTHER RAPIER FROM ISOPATA.

FIG. 26. REMAINS OF BRONZE RAPIERS (*a, b*) AND INLAID LIMESTONE BOWL (*c*) FROM M. M. III SEPULCHRAL DEPOSIT, ISOPATA, NEAR KNOSSOS.

by the associated objects, including—beside *alabastra* of a strongly marked Twelfth Dynasty tradition—a brown limestone vessel of the ‘bridge-spouted’ kind, decorated with white shell inlays inserted in drilled sockets (Fig. 26, *c*).

Not only in this case do we find the earliest dated example of a class of Shaft-Grave weapons on Cretan soil, but the prototype in this case, too, is supplied by a bronze dagger form of Cretan origin.

The suggestion, sometimes loosely made, that the magnificent sword types found in the Shaft Graves at Mycenae represent a ‘Northern’ element is very far from the truth. As a matter of fact, at the beginning of

in this case is tangless, but with a flattening at the top and two rivet-holes beside it. This type of dagger may, itself, be regarded as a natural development of an earlier class with a rather narrow blade and thick, somewhat square-cut midrib, which already appears as

an Aegean type by the close of the Early Minoan Age (cf. 'Αρχ. Έφ., 1898, Pl. XII, 6, from Amorgos, of the Third Early Cycladic Period). For an allied type from Kumasa see Xanthudides, *Vaulted Tombs of Mesarà*, Pl. XXIX, 1165.

the sixteenth or the later part of the seventeenth centuries B.C., to which, as we know from their associations, some of these belonged, the sword itself had not yet been evolved from the dagger on the Mainland of Europe.

Incidentally it may be further noted that the large bronze hunter's knives from Mycenae, terminating in rings for suspension, and called by Schliemann 'one-edged bronze swords', such as those from the Fourth Shaft Grave,¹ are enlarged versions of a smaller type of the same form of which specimens occur in Cretan tombs. There can be little doubt that it is a weapon of the same kind that is grasped by the footman in front of the chariot on the Second Tombstone.² The chariot itself has attached to it a short sword of the typical early form, dependent on a Middle Minoan blade.

But while, as we have seen, it is not difficult to find parallels to the Shaft-Grave swords on Cretan soil and to trace back their prototypes to forms of copper daggers going well back into the Early Minoan Age, researches on the Mainland side have led to almost entirely negative results. Dr. Blegen's recent careful exploration of Early and Middle Helladic tombs and houses at Zygouries in the Valley of Kleonae only brought to light a single dagger-blade³ of a somewhat advanced type, also known in the Cyclades and abundantly represented in the bee-hive tombs of the Mesara. One other similar example was discovered by him in a Middle Helladic tomb near the Argive Heraeum.⁴ The explorations of early strata in the Peloponnese, indeed, argue an extreme poverty in weapons and implements of metal. But in Crete, as is shown by the wonderful find of royal arms made by the French explorers in the Palace of Mallia, a long sword had arisen *per saltum* from a dagger type, on independent lines, as early as the initial phase of M.M. I.⁵ This splendid Minoan 'Durendal'—born thus before its time—long precedes the date of any other European swords.

The socketed bronze spear-heads from the Shaft Graves must in the

¹ Schliemann, *Mycenae*, p. 279, Figs. 442, 442 a.

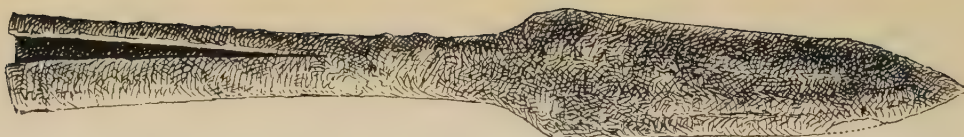
² Schliemann, *op. cit.*, p. 81, Fig. 140.

³ Carl W. Blegen, *Zygouries* (Harvard University Press, 1928), p. 182, and Pl. XX, no. 25.

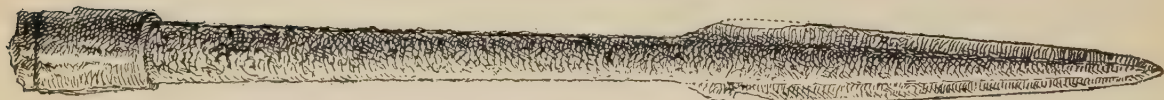
⁴ *Zygouries*, *loc. cit.*

⁵ See my remarks, *P. of M.*, ii, Pt. I, p. 273 seqq., and the illustrations there of the sword and dagger, by Monsieur Gilliéron,

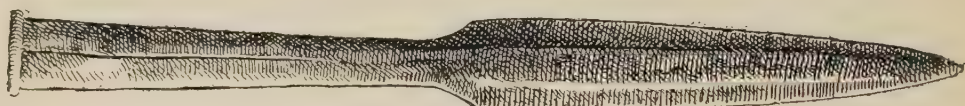
Figs. 162, 163. The whole find was magnificently published by the Fondation Piot, 1926, p. 1 seqq. and Pls. I, II. The date was, unfortunately, both there and in the *Comptes Rendus* of the *Académie des Inscriptions* (1924, 1925) brought down to M.M. III. Monsieur F. Chapouthier, however, had from the first rightly recognized the real date as M.M. I a.



(a) GRAVE XX, 12, MOCHLOS.



(b) GRAVE XX, 11, MOCHLOS.

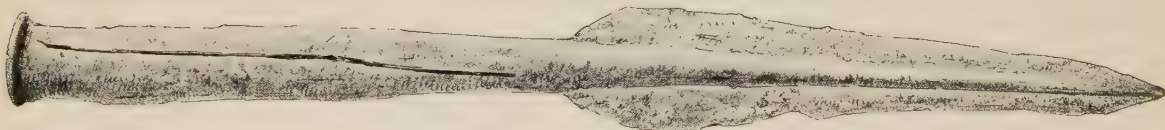


(c) GRAVE XX, 10, MOCHLOS.

FIG. 27. BRONZE SPEAR-HEADS FROM GRAVE XX, MOCHLOS, CRETE (M. M. III).



a



b

FIG. 28. BRONZE SPEAR-HEADS FROM SHAFT GRAVES, MYCENAE (a, GRAVE VI).

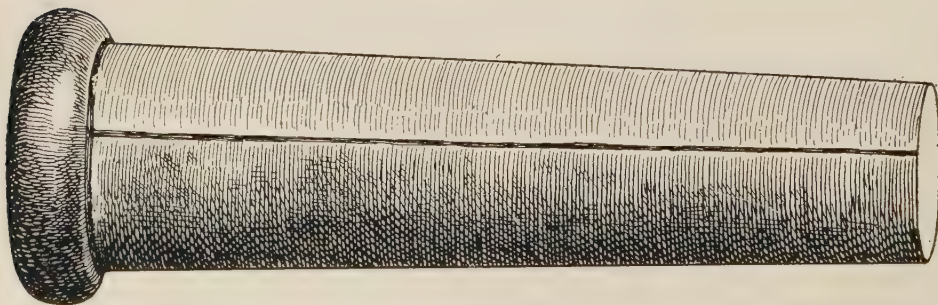


FIG. 29. SOCKET OF BRONZE SPEAR-HEAD FROM SHAFT GRAVE VI, SHOWING TERMINAL RING.

same way be regarded as belonging to the regular Minoan series. The socket in this case is not solid, but formed of a tongue of metal beaten round a mandril. It thus shows a slit along the side, and for that reason was often encircled at the lower extremity by a metal ring or collar. Good examples of spear-heads of this type were found in a M.M. III medium in Grave XX at Mochlos (Fig. 27). The slit and ring is often visible on the Shaft-Gravespear-heads—the ring fulfilling a distinct function in holding the socket together.

The ring or circlet is well exemplified in a large spear-head from the Sixth Shaft Grave (Fig. 28), the socket of which, as restored by Gilliéron,¹ is shown in Fig. 29.



FIG. 30. END OF SOCKET OF SPEAR-HEAD OF KING KAMES, SHOWING RING WITH INLAID 'LILY-WORK'. ($\frac{1}{4}$).

It is of special interest here to note that, for the apotheosis of this confining and strengthening circlet, we must turn to the remarkable spear-like Egyptian weapon on which the name and titles of King Kames, in the grand style, are set forth in engraved characters on the blade. At the same time the boss of the ring at the base of the socket is adorned with an engraved band of diagonally arranged lilies inlaid with gold (Fig. 30). The lilies here are of the conventional Egyptian type, but the choice of this flower as a motive of inlaid gold-work on a weapon and, it may be added, the alternating position of the lilies recalls the arrangement of a Minoan dagger-blade. Thus, both in its socketed form in the ring at its base and in its decorative motive, this spear-head—belonging to the first decade of the sixteenth century B.C.—exhibits elements that point at least to an incipient stage of that Minoan influence which so clearly declares itself on the axe-head and dagger-blade of Kames's successor, Aahmes.²

In the cast spear-heads of the Later Bronze and Early Iron Age this

¹ The joint, which is obscured in Gilliéron's metal reproduction, is restored in the drawing (Fig. 29).

² Now in the Ashmolean Museum. It has now been shown that this and analogous

weapons were used as swords rather than as spears. The ring here is fixed by the process known as 'burning on'. Sir J. Evans, *Archæologia*, liii (1892), p. 86.

circlet disappears as an organic feature. It is therefore of special interest, as an illustration of the very early character of Epic sources, that Hector's spear-head should be described as of bronze with a golden ring around it.¹

Whether or not there was any suggestion in that case from Egypt,² there is every reason for believing that the type of spear with the wrapped-

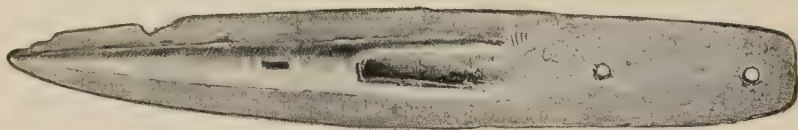


FIG. 31. BRONZE SPEAR-HEAD OF MAINLAND TYPE WITH SHOE-LIKE SOCKET (SESKLO).



FIG. 32. BRONZE HALBERD BLADE WITH GOLD-CAPPED RIVETS FROM SHAFT GRAVE VI.

over socket was evolved in Minoan Crete towards the close of the Middle Minoan Age. At this epoch it was as yet unknown on the European side. A native class of bronze spear-head of a quite different kind was indeed in vogue in Mainland Greece, and a fragmentary specimen of one of these occurred in the Fourth Shaft Grave, showing an inchoate socket of a quite different kind at the point. This very rudimentary form of spear-head has a shoe-like socket on the face of a flat blade and is characteristic of the 'Minyan' stratum of Mainland Greece (Fig. 31).³ Nothing

¹ *Il.*, vi. 320 and viii. 494 *πάροιθε δὲ λάμπετο δούρος | αἰχμὴ χαλκείη, περὶ δὲ χρύσεος θέε πόρκης*. Dr. Leaf, *Notes on Homeric Armour* (*J. H. S.*, iv, p. 300), and the *Iliad of Homer* (i, p. 217) has endeavoured to explain this with reference to the earlier form of blade fixed in the split end of the shaft. But the parallel above suggested is nearer in date and more obvious.

² Professor Petrie informed me that he had seen a socketed spear-head of this type from a tomb of the First Dynasty. They also seem to have existed in the time of the Twelfth

and Thirteenth Dynasties, but the specimens given by De Morgan (*Origines d'Égypte*, 1896, p. 209, Fig. 266) as coming from the Mastabas of Lisht have the appearance of belonging to a considerably later date.

³ From Grave 56 at Sesklo, where was also found, in a superficial deposit, a schist mould for a similar spear-head (Tsountas, *Προϊστ.* *Ἀκροπ. Διμηνίου καὶ Σέσκλου*, Pl. IV, 10, and pp. 334 and 354). A specimen of this type occurred in Leukas (Karo, *Arch. Anz.*, 1908, p. 130, Fig. 2). It has been found also on other Mainland sites, but its connexion with

indeed can more clearly illustrate, by contrast, the Cretan source of the true Mycenaean type. The native form was imperfect and abortive.

One remarkable object, indeed, from the Sixth Shaft Grave marks an intrusion from a very different direction. This is the bronze halberd blade with gold-capped rivets reproduced in Fig. 32, and which, as I have shown elsewhere,¹ belongs to a family of such weapons of widespread Western range, the basic type of which is an Irish halberd of already advanced form, showing the typical undulation of its lower edge. The connexion has to be traced through a wide Old Iberic tract between the Channel and the Alps, but a nearer link, pointing to arrival in Greece by the Adriatic route, is supplied by similar finds in the Po Valley. As in the case of the amber beads, so richly forthcoming in some of the Graves, we may trace here the operation of trade connexions along the East Adriatic Coast.

To what Extent were there non-Cretan Ingredients in the Shaft Graves?

For the purposes of the present study the intimate connexion between the culture revealed by the Shaft Graves and that of Minoan Crete is of paramount importance in supplying the chronological data of which we are in need.

In the earliest stage represented by the contents of the Shaft Graves, the finest products of Minoan Art are found side by side with comparatively barbaric native pottery of the 'Middle Helladic' class. But, as is demonstrated by a large number of later tombs, even this domestic element reaches almost a vanishing point by the latter part of the First Late Minoan Period, to be succeeded by what is best described as a colonial outgrowth from the originally imported Minoan ceramic types, till—towards the close of the Mycenaean Age—ceramic fabrics of indigenous style again become prominent.

Apart from the obvious survival of Middle Helladic pottery, very easy to explain in the case of conquerors more set on bringing armourers and goldsmiths than potters in their train, the evidence of native Mainland tradition is by no means so clear as it is generally assumed to be. Features even such as wearing of a beard and moustache illustrated by two gold masks are not altogether convincing when it is remembered that some evidence at least of such a custom is to be found in Minoan Crete, including a relief of an archer on a fragment of a steatite rhyton from Knossos.

a wider Bronze Age area has yet to be made out. A certain sympathy, indeed, may be thought to exist between this and a Caucasian form (Virchow und Baiern, *Gräberfunde*, &c.

in *Kaukasien*, 1885, Pl. VII, 5), but intermediate links on that side are not as yet forthcoming.

¹ *Palace of Minos*, ii, Pt. I, p. 170 seqq.

In the same way much has been made of the appearance, side by side with the ordinary men's costume, of short-sleeved tunics adapted to the colder continental climate. A fragment, however, of a fresco figure from the large deposit North of the Palace at Knossos shows part of the arm and profile of a man wearing similar short sleeves (Fig. 33), which, as in

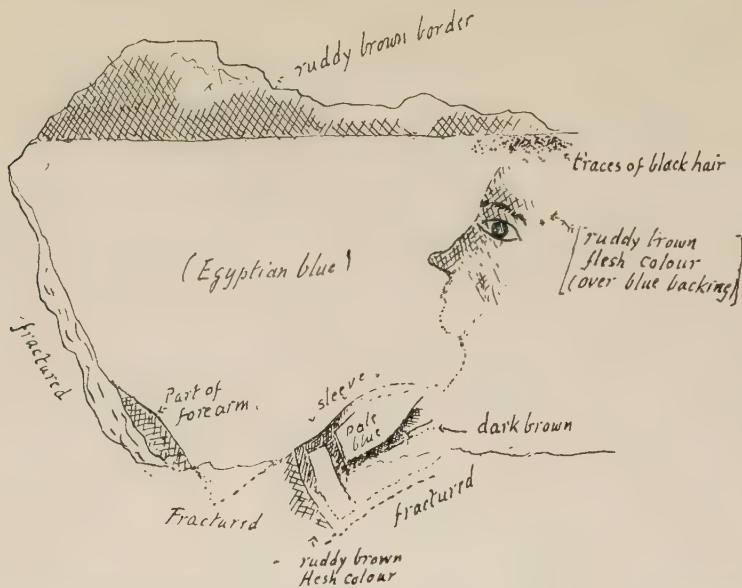


FIG. 33. PART OF MALE FIGURE IN SHORT-SLEEVED TUNIC ON FRESCO FRAGMENT FROM KNOSSOS.

examples from Tiryns, show a banded border. This fragment belongs to the later Palace, and probably comes within the L. M. I Period since it fits in with the fashion of comparatively narrow strips of painted stucco representations that coincides with the surviving use of high gypsum dado slabs. The 'Camp-Stool Frescoes' of the North-West Palace border, perhaps belonging to its latest Age, show male figures in long robes with short sleeves. If we turn once more to the Mainland site, the Thisbê intaglios show hairy short-sleeved tunics combined with flounced 'bathing drawers' which, as we know from the Zakro sealings and other evidence, themselves go back in Crete into the Third Middle Minoan Period. Before it is assumed that this costume represents an indigenous garb of Mainland fashion, it would be desirable to know what the 'Hellado-Minyan' dress actually was. In their general character the Mycenaean tunics might rather be traced to an Anatolian source, since they compare with certain Hittite forms, and the fact that this fashion was at least partially shared by Minoan Crete is easily reconcilable with this hypothesis.

Otherwise, in the great majority of instances, as may be seen from the signet types, the Cretan male costume was adhered to down to the very latest Mycenaean phase. The women's costume was always Minoan, being itself sufficiently adapted to the Mainland climate.

Even such decorative elements as the patterns of the *Stelae*, also referred to a 'Mainland' or, more distantly, a Trojan source, can, as we shall see, be shown to be of Minoan origin.¹

This, however, is not to deny that on the Mainland side, from the earliest days of Minoan settlement, we have to do with other factors, such as the survival in certain classes of objects of indigenous Minyan or Helladic tradition of the kinds already referred to, or to the intrusion of elements from other sources. Such have been cited above in the bronze cauldron from Grave III and the halberd blade, pointing to a wide Northern and Western connexion. But the evidences of cultural ingredients derived from the Aegean side are still more conspicuous, and imply still wider relations on that side.

Evidences of Trans-Aegean Influences from the North-East.

The Troadic affinities of the 'carinated' cups with high-swung handles have already been referred to, and, indeed, the whole of the intrusive 'Minyan' culture in Greece may be regarded as due to a continuous stream of influence from that side.² Apart from this general phenomenon, however, certain objects from the Shaft Graves show a specific connexion with a North-Eastern archaeological province extending far beyond the Aegean. A solid gold pin found with a man's skeleton in the Fourth Shaft Grave (Fig. 34, *b*),³ surmounted by an animal in a fine Minoan style, apparently representing a Barbary sheep,⁴ stands in a very close relation to a similar cloak-pin of silver (Fig. 34, *a*) with a horned animal perched on it, from Amorgos.⁵ In another direction similarities between the Early Cycladic pins

¹ See below, p. 50 seqq., and cf. *P. of M.*, ii, Pt. I, pp. 200-2.

² On the 'Troadic' connexions of 'Minyan' ware see especially Mr. E. J. Forsdyke (*J.H.S.*, xxxiv (1914), p. 126 seqq.). Mr. G. V. Childe (*op. cit.*, xxxv (1915), p. 195 seqq.) would explain these by 'a more or less unitary culture through the North Aegean and including the Troad'. But surely the primary and persistent impulse came from the N.E. of the Aegean—whence Boreas blows.

³ Schliemann, *Mycenae*, p. 250, Fig. 362. There were three men's skeletons in this Grave,

and two other gold cloak-pins were found, with stags-horn decoration. The pin has a loop on the top apparently for the attachment of a pendant. This feature, although visible in the photograph from which Fig. 34, *b*, was taken, is not brought out in Schliemann's illustration.

⁴ G. Schmid, *Bull. de l'Acad. Imp. des Sciences, St.-Petersbourg*, 1903, 5, p. 208. O. Keller, *Antike Tierwelt*, i, p. 317. Its present habitat is the arid Southern slopes of the Atlas.

⁵ Tsountas, *Κυκλαδικά* (Ἐφ. Ἀρχ., 1899, Pl. VIII, 66). Compare the pin surmounted

and those of Troy II, III—well illustrated by the types found in both areas surmounted by small vases—afford a link of connexion with a still wider field of comparisons. To this field indeed we are already led if we may

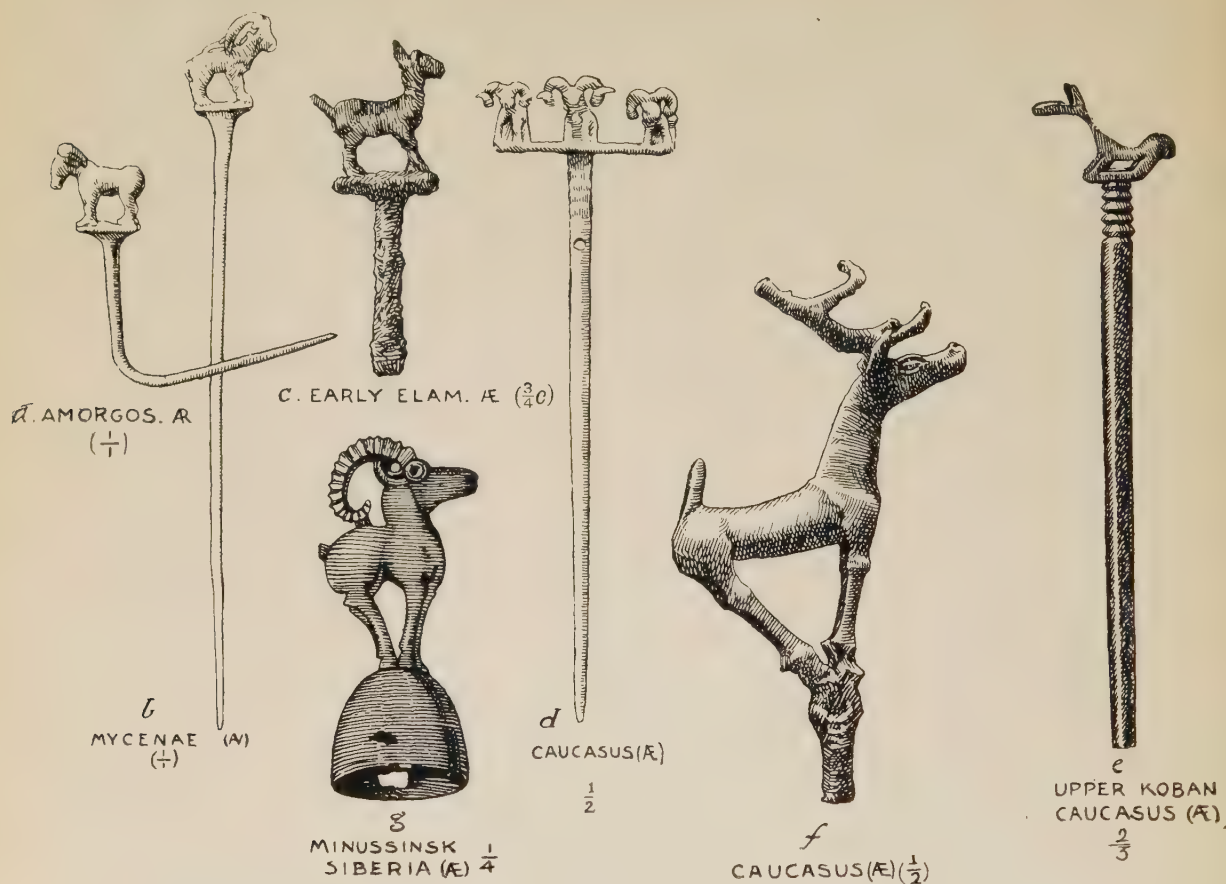


FIG. 34. PERCHED ANIMAL FORMS ON METAL PINS AND OTHER OBJECTS OF WIDE NORTH-EASTERN RANGE.

trace the Troadic and Aegean silver supply to a Pontic source. Throughout a large Caucasian region it is a constantly recurring feature that the extremities and upper edges of metal objects are surmounted by animal figures, mostly horned, and also by birds. The far-reaching influence of this early metal Province, which extends to the Trans-Caspian region, is shown by the diffusion of imitative forms of its characteristic fabrics as far as Siberia and the Finno-Ugrian North and Eastwards across the Tatar steppes of Central Asia to beyond the borders of China. It was a Western

by a bird (*op. cit.*, 1899, Pl. X, 13, and cf. these silver pins was found on the neck of Karo, *Schachtgräber von Mykenae*). One of a skeleton, the other on the collar-bone.

wave of this influence that was so intimately to affect the European area distinguished by the Hallstatt Culture. In the Caucasus itself, though the accessible evidence is somewhat late, these horned animal figures as ornaments of metal are specially at home and show a curious persistence. Here, too, this method of decoration was applied to pins, as seen in Fig. 34, *d*, *e*, *f*, from graves of the Koban Cemetery. These specimens come down within the limits of the Early Iron Age, but the great antiquity of parallel types farther East is shown by Fig. 34, *c*, from the foundation deposit of the Temple of Shushinak¹ in Elam, going back to the third millennium B. C. When, as is often the case, and as is seen in Fig. 34, *f*, from Caucasus, and *g*, from Minussinsk, in Siberia, placed here for comparison, the animal's legs are drawn together like those of an antelope alighting on a pinnacle of rock, the special appropriateness of such an ornament to the extremities of objects becomes manifest.

Though the general associations of the pin from the Fourth Shaft Grave and its earlier Cycladic prototype link them on this widespread 'Caucasian' class, it must still be observed that they appear from the first in an already acclimatized Aegean form. It is worth observing, moreover, that the other two gold pins found with that presenting the horned animal in Grave IV (Fig. 35, *a*) show a hooked termination in the form of the base of a stag's antler with its ring or 'burr' and the spring of its brow-tine. From the angle at which this tine springs from the antler-base it is clear that it belonged to a fallow deer (Fig. 35, *b*), a species that marks Minoan Crete and the South-Easternmost Aegean islands, but which was foreign to Mainland Greece, where the typical stag was, and always has been, the red deer.

It is not the least significant symptom of the dominant Cretan influence in the artistic productions even on the Mainland side that it is the dappled fallow deer with its palmated antlers that forms the subject not only of the probably imported intaglios of the Shaft Graves,² but of the

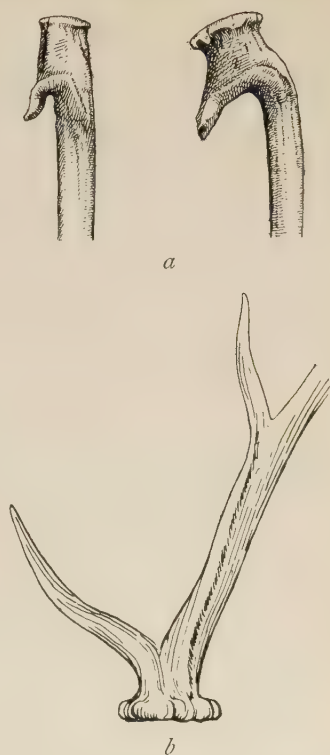


FIG. 35. *a*, HEADS OF GOLD PINS FROM GRAVE IV; *b*, PART OF ANTLER OF FALLOW DEER.

¹ De Morgan, *Délégation en Perse*, vii, p. 82, Pl. XIX, Fig. 3.

² Signet ring, Grave IV (Schl., *Mycenae*, p. 223, Fig. 334: Furtwängler, *Antike Gemmen*,

elaborate hunting scenes of the wall-paintings in the later Palace of Tiryns.¹

Of the red deer, indeed, almost the only known illustration in a Mycenaean connexion² is supplied by the curious 'rhyton', of silver alloyed



FIG. 36. BASE SILVER 'RHYTON' IN FORM OF RED DEER FROM SHAFT GRAVE IV.

with a third of lead, in the form of a stag found in the Fourth Shaft Grave³ (Fig. 36). The workmanship of this vessel is markedly below the good Minoan standard, and its type, embodying the whole animal, though conforming to an

Pl. II, 8); see below, p. 58, Fig. 43. Amethyst, Grave III (Schl., *Mycenae*, p. 202, Fig. 315; Furtw., *A. G.*, Pl. III, 11).

¹ Rodenwaldt, *Tiryns*, ii, p. 140 seqq., Plates XV, XVI. For a *résumé* of the figures of stags on Minoan gems, see *op. cit.*, p. 151, note 1. Fallow deer may, of course, have been later introduced into the Argolid for purposes of the chase, but there is no actual evidence of their existence at any period in Mainland Greece.

² O. Keller, *Thiere des klassischen Altertums*,

p. 80. Furtwängler, *Antike Gemmen*, iii, 52, n. 1, has also recognized red deer on a Mycenaean sardonyx lentoid of the Bourguignon Collection.

³ Schliemann, *Mycenae*, p. 251, Fig. 376. Karo, *Minoische Rhyta* (*Jahrbuch d. Arch. Inst.*, 1911), pp. 263, 264, first pointed at the true character of this vessel as a 'rhyton' with a small hole in the snout as well as the larger aperture in the back. He hesitates as to its Cretan provenance.

old Minoan tradition, is distinctly provincial. The usual 'rhytons' of this epoch consisted of an animal's head alone, like the silver bull's and lion's heads from the same Grave. It is worth observing that the red deer,



FIG. 37. GOLD ORNAMENTS OF NORTH-EASTERN ORIGIN FROM SHAFT GRAVE III.

besides its wide European distribution, has a considerable circum-Pontic range and was a special subject of representation in Caucasian metal-work.¹

An exceptional series of gold ornaments found in Grave III (Fig. 37), where there were three skeletons, all of them female, possibly shows that there had been intermarriage with princesses of non-Minoan stock, who

¹ I note that S. Reinach, *Sculpture en Europe avant les influences gréco-romaines*, p. 136, very naturally groups this silver rhyton with stags in decorative work of the Caucasian class. The red deer appears both on coins of the European and Asiatic Bosphorus. The stag on

a fragment of early black and red dull-paint ware from Cappadocia (*P. of M.*, i, p. 559, Fig. 407) seems to be also of this species. The fallow deer had a more Southern range, through Anatolia to Syria and the Euphrates Valley.

clung to some native fashions of their own. These consist of spiral wires on either side of gold tubes (Fig. 37, above), bracelets of spiraliform fabric and three pairs of ear-rings which, however, must have been hooked on to the ears. All of these recall types of gold ornaments found in the treasures of the Second and Third Cities of Troy, but—as might have been expected from the considerable chronological gap of at least seven centuries—in a developed shape and illustrating a more advanced technique. Hubert Schmidt has well shown that the typical form of the ear-rings, together with the general fashion of spiraliform jewellery, is common to a large Central and Eastern European Province, including the Early Bronze Age 'Aunjetitz' Culture of Bohemia¹ and would seem to have centred in that early Eldorado, Transylvania. Later phases are seen in the Caucasus, but we are still brought back to Troy for the earliest representative types. Ear-rings themselves, so far as the evidence goes, only appear in Crete in the Late Minoan Age.

A trans-Aegean as well as a Cycladic element must thus be recognized among the relics from the Shaft Graves. The Pontic and Troadic influences to which apparently in the earliest times the silver supply of the Aegean area was principally due remained an abiding factor. There exists, indeed, some incontestable evidence that a commercial intercourse between Minoan Crete and the Southern coasts of the Euxine, including the neighbourhood of Amisos, was actively carried on in the closing phase of L.M. I²—an epoch still covered by the latest interments in the Shaft Graves.

Supersession both of Exotic and of Hellado-Minyan Elements at Mycenae by purely Minoan Culture.

There are reasons for supposing that most of the exotic objects above referred to, and notably such objects as the cloak-pins and ear-rings, may be reckoned among the earlier relics found in the Graves. Clearly, at the time when the rulers of Mycenae first made good their position in the Argolid, a strong current was flowing from the North-East. It is almost equally clear, however, that in the succeeding Age and already by the first Late Minoan Period—well illustrated by the contents of the Chamber Tombs of Mycenae and its neighbourhood, and, indeed, of Mycenaean Greece in general—the evidence of these North-Eastern influences disappear. The characteristic ear-rings, the pendants and pins, the typical perched animals, are no longer found.

At the same time the old indigenous Helladic and Minyan element

¹ *Zeitschrift für Ethnologie*, xxxvi (1901), p. 609 seqq. ² *P. of M.*, ii, Pt. II, pp. 658, 659.

becomes less easy to discern. In the earlier stage represented in the Shaft Graves a considerable native ingredient, as we learn from the pottery, was still perceptible. By the later phase, corresponding with L. M. I *b*, however, the predominant Cretan element triumphs all along the line, and, in examining, for instance, the Chamber Tombs of that date, it is often difficult to find a single vessel that is not both in form and decoration of purely Minoan pedigree.¹ Parenthetically, it may be observed, that to call this civilization 'Helladic' is both untrue to fact and misleading to students. It is only later that the older elements to a certain degree show a tendency to reassert themselves. The typical 'owl-faced' idols of Schliemann—so abundant in the upper stratum above the platform of the Grave Circle—are certainly derived from an early Helladic prototype, of which an example was found by Dr. Blegen at Zygouries near Kleonae.² But these 'dollies'—to use the colloquial name now in vogue with excavators—make their first appearance in that later stage of the culture characterized by the diffused Mycenaean style.

The higher aspects of the culture revealed to us at Mycenae must in any case be recognized as belonging to the Minoan world. That world doubtless included provincial areas, of which, as in the case of the Western part of Crete itself, we as yet know nothing. It may already have absorbed colonial tracts on the East Aegean shores. There was room within it for many local variations and divergent customs. But Minoan Crete is still its centre, and—as will be fully demonstrated below—down at least to the close of the Palace Period—the influence of Knossos itself, the 'Great City', was still predominant. Even the details of architectural decoration correspond, while, in the early age, at all events, of the Mainland palaces, the fresco designs on the walls, such as have been brought to light at Mycenae and Tiryns and Thebes, must, to judge both from their style and subjects, have been largely the work of artists trained in the Knossian *ateliers*. The model gold temples, moreover, not only repeat the architectural features of that on the Miniature Fresco from Knossos, but with their perched doves and

¹ Some misunderstanding appears to exist on this head. The 'Ephyraean' cups, for instance—ultimately of metallic origin—though of local fabric, are copied in their painted designs as well as their form from L. M. II Knossian models.

² Karl W. Blegen, Ph.D., *Zygouries, a Pre-historic Settlement in the Valley of Cleonae*, Harvard University Press, 1928. See Pl. XXI, 1, and Dr. Blegen's remarks, pp. 185,

186. The figurine is assigned by him to the 'middle stage of the Early Helladic Period... the details being delineated in a glaze paint in the style of the Early Helladic patterned ware'. Dr. Blegen's suggestion, there tentatively put forward, that the Mycenaean figurines 'represent the re-emergence of a persistent underlying native type' seems to me to be entirely justified.

associated relics, such as the gold double axes of the same scale, fit on to a whole series of phenomena, showing that the Minoan religion had been transported in every detail to the Mainland side.

THE GRAVE STELAE.

Minoan and 'Egypto-Minoan' Affinities of Designs.



FIG. 38. CLAY SEAL-IMPRES-
SION FROM HARBOUR TOWN,
KNOSSOS.

The Grave Stelae repeat the same story as the relics found with the interments.¹ They seem to have been, for the most part at least, sculptured by craftsmen whose ordinary work was connected with the goldsmith's art, and who—though skilful enough in their reproduction of border patterns taken directly from the ornamental designs—show a great unevenness in their execution of figured reliefs. The spiralliform motives here represented—apart from those belonging in a more general way to the Cretan and Aegean class in its wider sense—specifically belong, as I have elsewhere demonstrated in detail, to an 'Egypto-Minoan' branch. Especially instructive in this connexion is the pattern formed of eight C-scrolls linked within a circle seen on Stela VI, which is exactly taken over from a Cretan type, of M. M. III date, found on clay sealings both at Zakro and in the Harbour Town of Knossos (Fig. 38).

A table showing Twelfth and Thirteenth Dynasty Egyptian examples as seen on scarabs compared with others supplied by Minoan decorative patterns is here reproduced,² in Fig. 39, and is of particular value in its bearing on similar designs that appear on the Mycenae stelae. An interesting point in these comparisons is that, though taken over on to larger monumental art, and reproduced both in painting and sculpture, these patterns belong in their original stage essentially to the field of seals. In conformity with this, the Egyptian quatrefoil motive, borrowed in the case of *f* from a sealing on a Kahun papyrus, takes the oval outline adapted to the scarab shape.

¹ The stelae were first separately treated by W. Reichel, *Die mykenischen Grabstelen*, in *Eranos Vindobonensis*, p. 24 seqq. A fresh examination of the material was undertaken by Dr. Kurt Müller in his *Frühmykenische Reliefs* (*Jahrbuch d. Arch. Inst.*, xxx; see

p. 286 seqq.). The whole material has since been carefully collected and arranged by Mr. W. A. Heurtley in *B. S. A.*, xxv, p. 126 seqq., and Plates XIX-XXI.

² See *P. of M.*, ii, Pt. I, pp. 199-202, and Figs. 110 A and 110 B.

On the Cretan specimens, *o*, *p*, on the other hand, we see round types answering to the Minoan seals. The impression *p*, copied from a Zakro sealing, which also reappears on the clay seal-impression found in the Harbour



FIG. 39. ‘EGYPTO-MINOAN’ DECORATIVE SCROLLS AND THEIR REACTION AT MYCENAE.

Town of Knossos (Fig. 38), has in this connexion a special interest. Except for the lozenge inserted in its centre it will be seen to be identical with a sculptured pattern inserted in the border of Stela VI at Mycenae (Fig. 40, *a*), the resemblance, indeed, being so striking that we must infer a direct dependence on a M.M. III seal-type. Fig. 40, *b*, shows a similar affinity to that seen in Fig. 39, *k*, illustrated by a fresco fragment from Knossos, of earlier date.

Thus the patterns on the Stela No. 6, given in Fig. 40, tell their own tale.

When tracing the origin of ornamental groups found on similar objects, the principal *noscitur a sociis* will be found as useful a guide as in other cases.

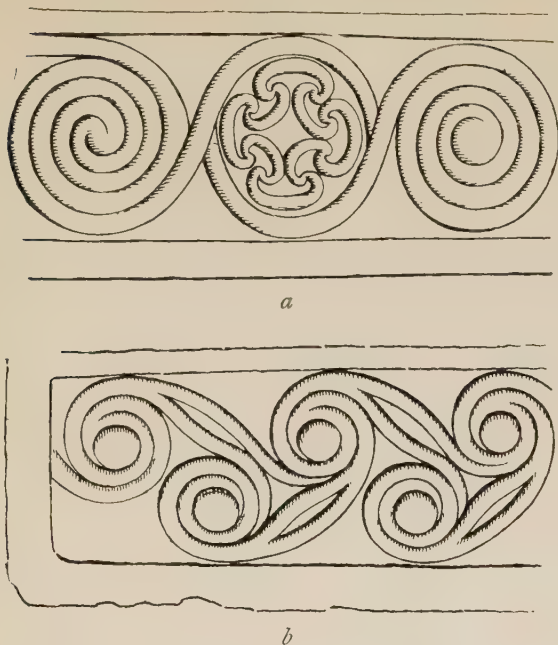


FIG. 40. *a*, SEAL PATTERN (C-SCROLLS) ON STELA VI, AT MYCENAE; *b*, RUNNING PATTERN ON SAME STELA.

When, then, we are able definitely to assign certain special motives among the spirali-form elements of the Mycenae Gravestones to this 'Egypto-Minoan' family, a strong presumption arises that other simpler ingredients met with in the same connexion belong to the same category, although they themselves may be of a less specialized kind, and capable therefore of having been taken from a much wider circle of similar forms. It is an undoubted fact that the 'Egypto-Minoan' group illustrated by the table of Fig. 39 is itself to a large extent allied to a wider ornamental province extending to the North and North-East of

the Aegean. The spiral system itself, though deeply rooted in the Cyclades, is quite exceptional amongst Early¹ and even Middle Helladic remains, and, on the face of it, it does not seem probable that a lapidary sculptor, working amidst thoroughly Minoized surroundings, should have taken one part of his decorative motive from these, and sought the others in some vague indigenous non-Minoan source.²

Among the most primitive of the stelae is that from Grave V with its geometrically arranged groups of interconnected spirals in the field above. In Fig. 41 its design is traced from Schliemann's original photograph. Here the pendent double spiral, with a loop between, reproduced

¹ Incised spirali-form decoration appears on part of the rim of a pithos from Zygouries (K. Blegen, *Zygouries*, p. 121, Fig. 114, 6. As Dr. Blegen remarks (p. 122): 'the spiral is, to say the least, exceedingly rare among

the decorative motives of the Early Helladic Period'.

² This is what seems to be intended by Dr. K. Müller's 'altenheimische Dekorationskunst' (*Frühmykenische Reliefs*, p. 288).



FIG. 41. STELA FROM GRAVE V.

in Fig. 39, *h*, is really, as shown in the table, a simple decorative equivalent of the 'canopied ankh' series of the Egypto-Minoan group. The closely allied motive, Fig. 39, *l*, recurs on gold bands found within the Grave

itself.¹ It also appears on a fragment of another stela of which a restored drawing is given by Mr. Heurtley,² and it is found again on a steatite pot that came to light, as an intrusive element, among L.M. Ia vases from a tomb in Cerigo, itself probably of early Middle Minoan date.³ The drawing of the scene below is exceptionally rude, contrasting with the comparatively neat work of the purely decorative part of the stela—we may recognize here, indeed, with great probability the work of a goldsmith set to execute a figured design in stone relief. The short sword held by the charioteer is of the early dagger-like type, and the long knife wielded by the apparently naked man in front has also been shown to represent a Cretan form.⁴ The contrast between the ornamental and figured elements of the design closely recalls the embossed plates belonging to two hexagonal caskets from this Grave.⁵ There the sides, showing finely embossed linked spirals, are coupled with others with lions hunting stags, in a crudely decorative style. None the less every characteristic feature, both in the style and the design, is of pure Minoan origin. We see the typical 'flying gallop', the foliage and shoots of palms copied from Cretan models, and a large bull's head inserted quite gratuitously in the background, just as we see incongruous animals' heads used to fill up vacant spaces on Minoan seals.

On the most advanced of all these reliefs, that given in Fig. 42⁶—also found above the Fifth Shaft Grave—a man with a triangular dirk slung to his side drives a chariot of a characteristic Minoan form. The pole which runs up from the front of the chariot floor is linked to the upper part of its breastwork⁷ and its recurved end is seen behind the near horse's neck. A part of the girth is also visible and the loop of the knotted cord by which it was fastened to the yoke. Beneath the horses lies a fallen warrior with a crested helmet, the back of which is clearly seen. He lies, apparently, with his head turned towards the lower margin of the field,⁸ and is covered by an

¹ Schliemann, *Mycenae*, p. 326, no. 514 seqq.

² W. A. Heurtley, *The Grave Stelae of Mycenae* (B. S. A., xxvi), p. 139, Fig. 32, a and aa.

³ See *P. of M.*, ii, Pt. I, p. 199, and p. 208, Fig. 117, B. For the find see V. Stais, 'Αρχ. Δελτ., i, p. 192. The representation there given (Fig. 1) fails, however, to show the engraved pattern of the upper band where this motive occurs.

⁴ Cf. p. 37. It answers to Schliemann, *Mycenae*, p. 279, Fig. 442.

⁵ Schuchhardt, *Schliemann's Excavations*, pp. 250-2, and Figs. 260-2; cf. K. Müller, *op. cit.*, p. 295, Fig. 16.

⁶ This figure is also taken from an original photograph of Schliemann's.

⁷ The point of attachment, however, seems here to be near the horses' hind-quarters, unlike the Later Minoan arrangement.

⁸ This, too, is also Dr. Kurt Müller's view, *Frühmykenische Reliefs, Jahrb. d. D. Arch. Inst.*, 1915, p. 287. The crest of the helmet falling down to the neck is also correctly recognized.

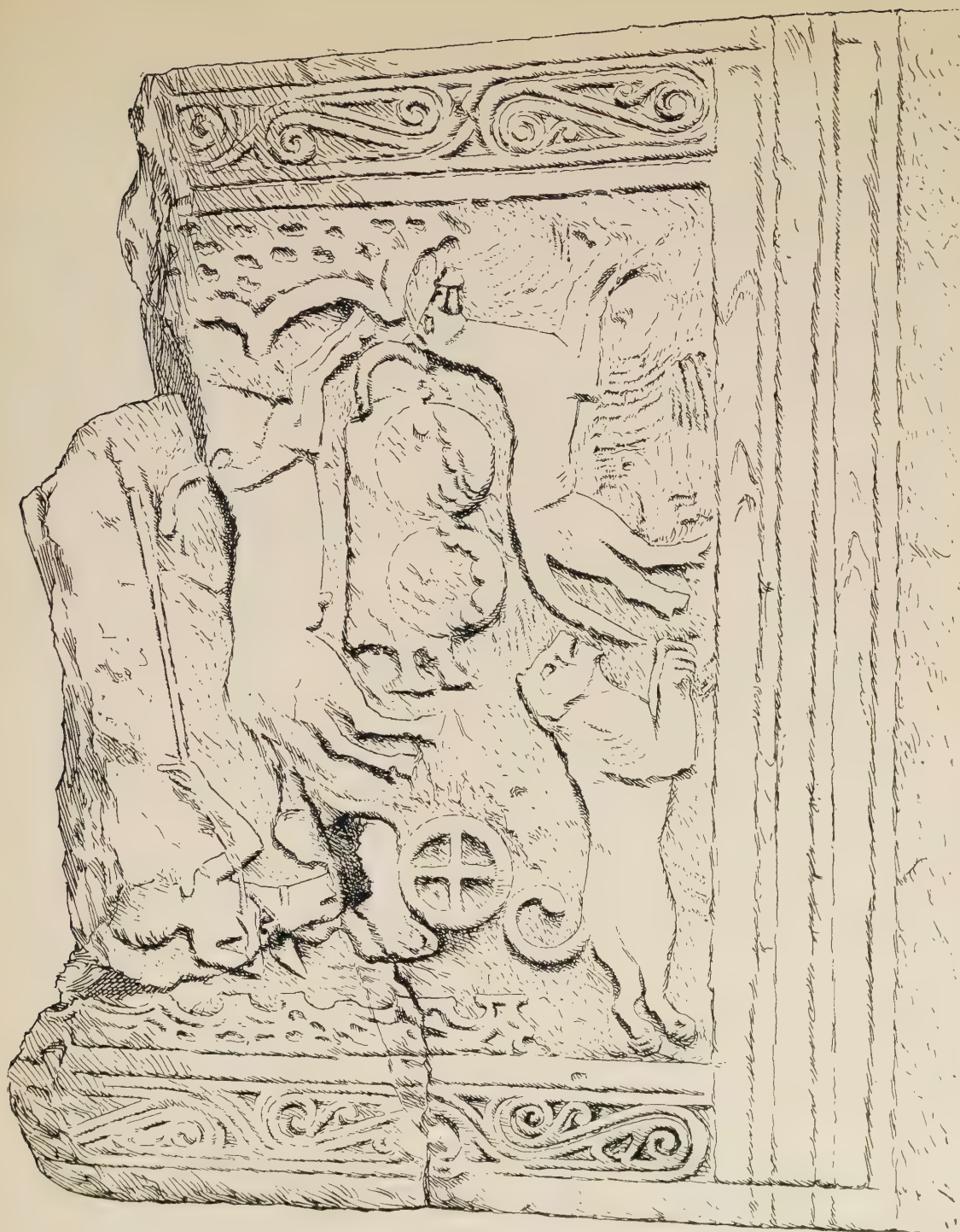


FIG. 42. LATER STELA FROM SHAFT GRAVE V.

8-shaped shield, the traces of conventional patches on which show that it was covered with bull's hide. The straight line down his back may best be interpreted as the border of a long mantle, or perhaps a plaid, which was certainly an article of Minoan attire. From the typical shield and crested helm we may infer that the victory here recorded was gained over some other member of the conquering race.

The feat of arms here depicted is emphasized below by a lion pursuing an ibex. This allusive glorification of the warrior prince 'as a young lion roaring on his prey'¹ is curiously suggestive both of the imagery and of the 'parallel' style of Hebrew poetry.

Specially interesting features of this relief, moreover, are the irregularly outlined designs behind and before the chariot scene, in the latter case with granular marking within. These designs might be regarded as in a general way representative of rocky landscape—not very favourable, it might be thought, for hunting in a chariot! But the more precise comparisons now at our disposal show the real source of the filling-in motive to which the artist here has had recourse. It is in fact a convention taken over, without any consideration of appropriateness,² from what may be called the 'marine cycle' of Middle Minoan wall-painting and reliefs. What we see behind are the conventional rocks of the sea margin³ and the granular marking within the cusped outline in front is a further indication of a pebbly shore. This dual delineation in fact recurs on the remarkable M.M. III burial-jar from Pachyammos, with swimming dolphins in the intervening space.

In this relief, too, the imperfection of the sculpture of the figured designs contrasts, as in other cases, with the comparative success attained in the decorative border. The recurring S-shaped motives here represent one of the earliest Minoan seal patterns, and their excrescences, suggestive of leaves and buds, are found in the same connexion.⁴ They are akin to the tendrils which otherwise take their place,⁵ and both types are illustrated by the gold

¹ Isaiah xxxi. 4.

² The conventional imitation of rocks, indeed, is also applied to landscape. But the double excrescences seen in the version shown on the right of this stela have a distinctly marine association. In their completer form they represent coralline or seaweed.

³ Rocks by themselves are also used for land scenery, as in the case of the 'Saffron-Gatherer' fresco.

⁴ Fig. 16, p. 31, above, and cf. *P. of M.*, ii,

Pt. I, p. 197, Fig. 106, *b, c*.

⁵ *Ibid.*, p. 196, Fig. 105. Dr. Kurt Müller, in discussing the decorative designs on this stela (*Jahrbuch d. Arch. Inst.* (xxx), 1915, pp. 287, 288), regards them as due to naturalistic Minoan influence acting on the old geometric spiraliform motive of indigenous (Mainland) origin. In view of the early sphragistic evidence now before us, however, it is clear that these motives came over, ready-made, from Minoan Crete.

plaques from the Shaft Graves themselves. These decorative borders betray once more the hand of a goldsmith or seal-engraver, whose services had been enlisted for work on the larger material.

This stela, then, is from the hands of a Cretan-trained craftsman, working at Mycenae. There are indeed clear indications that the sculptured design was finished in a typically Minoan manner; by the application, that is, of painted plaster, so that certain crudities in the stone-cutting would have been toned down.¹ We may further infer that, as in the case of the low reliefs of painted stucco at Knossos, the flat background of the scenes depicted on the stela was also varied with coloured details such as flowers and foliage.

In view of the all-pervading Minoan taste for brilliant colouring, it is difficult to withhold the conclusion that the reliefs on the stelae—like the plaster reliefs of Knossos—showed a painted surface, in this case effected by means of a comparatively thin stucco coating. Where, as in the case of a series of stelae, there were no reliefs, painted decoration was the more necessary.² A very late example found in a Chamber Tomb at Mycenae³ has a flat plaster surface with coloured panels, presenting figured designs curiously suggestive of the later frescoes of Tiryns. This was indeed a palimpsest on an earlier surface presenting incised wheels and circles, but the evidence it affords in favour of the original polychromy of the stela is still valid.

The panelled arrangement of the stelae and the division of the field into registers is itself a characteristic of Minoan fresco painting. There does not seem sufficient reason to invoke the influence of matt-painted pottery, Cycladic or Helladic.⁴ Such scenes of warriors or huntsmen driving

¹ W. Reichel (*Die mykenischen Grabstelen*, p. 31), who had no knowledge of the Cretan comparisons, already remarked on this stela: 'Die Güte der Zeichnung bildet jetzt einen auffallenden Contrast zu der Vernachlässigung der Oberfläche des Steines. Dieser Mangel schwindet aber wenn wir uns den schlechten Kalkstein mit einer feinen bemalten Stuckschichte überzogen denken, unter der seine Unebenheiten verschwanden,' &c.

² Dr. Karo (*op. cit.*, p. 128) objects to the view that the flat-faced stelae were painted over on the ground that their surface was left rough ('nach der uneglätteten Oberfläche des Steins'). But this would rather seem an

argument in favour of a plaster wash. The absence of traces of stucco on the stelae, which he also urges, is not in itself conclusive.

³ Tsuntas, *Ἀρχ. Εφ.*, 1896, p. 1 seqq., and Plates 1 and 2.

⁴ Mr. W. A. Heurtley, *B. S. A.*, xxv, pp. 140, 141, compares the panels of the stelae with those seen on certain Middle Helladic amphoras, such as one from the Fourth Shaft Grave, with similar panels or registers. But the panels of Minoan wall-paintings supply a more obvious source. These scenes of warriors or huntsmen in chariots, repeated on Minoan signet types, were doubtless also executed in wall-paintings.

—Oriental in their ultimate source—were just such as the goldsmith sculptors of the stelae executed with greater success on their engraved rings. A good example of such a type is seen on a gold signet ring (Fig. 43) from the Fourth Shaft Grave.

The funereal application of chariot-scenes is itself traditional in Crete, as may be seen from the chariots on the Hagia Triada sarcophagus, and survives to a still later date in an imperfectly preserved scene on a *larnax* from the Zafer Papoura cemetery, presented to the Ashmolean Museum.



FIG. 43. GOLD SIGNET-RING FROM SHAFT GRAVE IV WITH STAG-HUNT.

The evidence of the influence of the M.M. III pictorial style with rockwork borders on the most advanced of the stelae—that reproduced in Fig. 42—itself affords a valuable clue to its date.

It may be said to represent the transitional M.M. III–L.M. I phase, and not improbably belongs to the same epoch as the last dated vessel of Tomb V, in which it was found—an amphora in the L.M. I *a* style.¹

It looks, therefore, as if the latest of the stelae was executed about the middle of the sixteenth century B.C.

It has become almost an axiom that the art of monumental sculpture in relief in stone—as contrasted with the hard stucco of which the Minoan craftsmen knew the secret—was a ‘Mainland Art’, and was due to native ‘Helladic’ influence. The assertion in any case must be greatly modified, since, from the beginning of M.M. III onwards, the finest decorative reliefs were executed in native limestone at Knossos. In the case of figured subjects, moreover, when we recall not only such masterpieces in the round as the lioness’s head rhyton, and, on a smaller scale, the Fitzwilliam statuette, but the admirable reliefs on ‘rhytons’ and other vessels, it might seem advisable to pause before drawing sweeping conclusions like the above.

It is probable that the artists trained in Minoan schools, who worked on the Mainland side, for one reason or another, had found it less easy to obtain a supply of the plaster to which they had been used in Crete. They did not, indeed, give up its use, but seem to have applied it more as a covering to works executed in the local stone. The Lions’ Gate relief,

¹ Furtwängler und Loeschke, *Myk. Thongefässe*, Pl. VII, 42.

which—with the Elgin reliefs—represents the finest sculptural work of the new-comers, was undoubtedly finished off by a painted plaster coating.

The stela reproduced in Fig. 42 was, as already observed, clearly sculptured by the hand of a Minoan craftsman reproducing traditional details—many of which can be paralleled on the fresco panels of Knossos—but who relied on a final wash of plaster on which to use his brush.

Position of Stelae over Shaft Graves—their Place originally within Tholoi.

It is of interest to note that the most primitive of the stelae—though only fragmentary remains of them are preserved¹—were found over Grave VI, to the exceptional character of which attention has already been called.

Only part of the stelae—which originally seem to have amounted to about a dozen—were actually found in position above the Graves, as shown in Belger's original restoration of the Grave Circle,² here reproduced (Fig. 44). One particular circumstance regarding them has never been explained. Apart from the stelae, both sculptured and plain, found standing on the slightly sloping surface of the Circle, others of the unsculptured kind were found at considerable depths below, both in a prone and in an upright position. Schuchhardt's view³ that they marked female interments is hardly reconcilable with the fact that the sculptured stela, No. 11, was found over Grave II, occupied exclusively by women. That they belonged to persons of less consequence, however, is probable enough. It is also a reasonable conclusion that they had been originally covered with painted designs on a stucco wash.

Such a thin coating was naturally perishable. It was liable to injury through damp, and might easily flake off, especially at a time of transference. The suggestion seems to be admissible that at the time when, *ex hypothesi*, the remains were removed to their new resting-place, it was not thought necessary to set up such blank stones, and that they were therefore simply buried above the graves. It is further possible that during the interval of

¹ Heurtley, *op. cit.*, p. 136, Fig. 31. Stelae x and xi. These fragments are placed together by Mr. Heurtley as Class I. They differ in material from all the other stelae except no. 1. Mr. Heurtley notes the negroid character of two of the heads. This may be simply due to primitive workmanship, but the evidence preserved by the faïence mosaic

and the fresco depicting the 'Captain of the Blacks' at Knossos makes it possible that the figures were actually intended to represent negroes.

² Christian Belger, *Mykenische Localsage*, (1893), p. 26, Fig. 2.

³ *Schliemann's Excavations*, &c., p. 168.

time that elapsed between the removal of the remains and the final construction of the Grave Circle, entailing a rearrangement of the stelae at a somewhat higher level, one or other of the stones with a plain surface, that

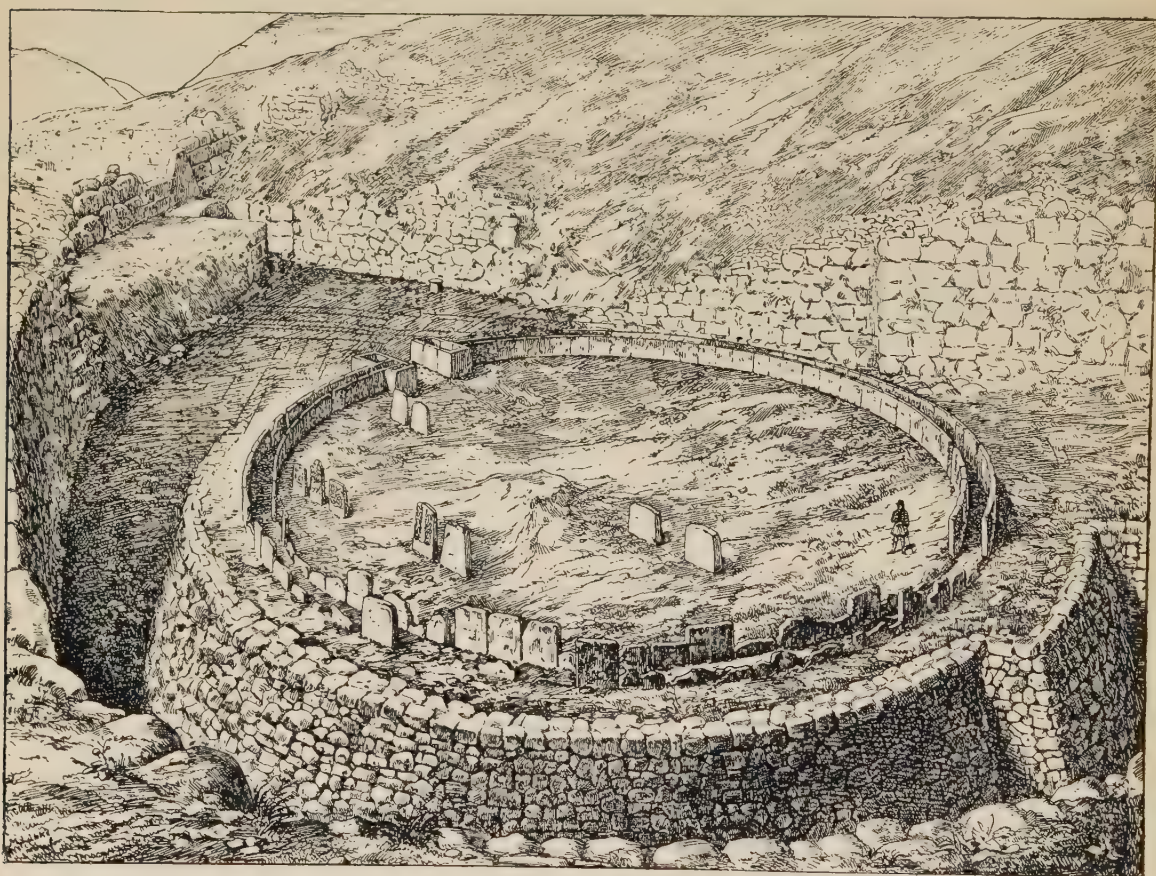


FIG. 44. SEPULCHRAL AREA WITHIN ORTHOSTATIC CIRCLE ON ARTIFICIAL WALLED MOUND, MYCENAE. (FROM CH. BELGER, *MYKENISCHE LOCALSAGE*.)

it had at first been sufficiently preserved to set up, had become so far defaced that it did not seem worth while to include it in the new arrangement, and that it was therefore buried, standing as it was.

That the final erection of the gravestones on the new platforms was a task of some elaboration is shown by the difficulty found by Schliemann in removing them. He says of the large unsculptured stelae of Grave III that they were extremely well fastened by square blocks, so that 'they could not be got out without great efforts'. In this case he found two other 'large slabs in the form of sepulchral monuments' lying horizontally two feet

below these, and he adds 'at a depth of 5 feet lower I brought to light three more slabs, the one lying, the other two standing'.¹

The assumption that gravestones like those found over the Shaft Graves necessarily marked interments in the open cannot be maintained in view of certain facts and further indications that we now possess.

A good instance in point has now been supplied by the early cemetery of Mavro Spelio at Knossos, that lies on the height beyond the Kairatos, the large rock-chambers of which, though they continued in use to L. M. III, in all cases seem to have gone back well into the Middle Minoan Age. Here Mr. E. J. Forsdyke, in the course of his excavation of Tomb IV, came across the limestone slab, about 3 feet high, shown in Fig. 45,² in which we must surely recognize a sepulchral stela. Al-



FIG. 45. STELA FROM CHAMBER TOMB IV, MAVRO SPELIO, KNOSSOS, BEVELLED OFF BELOW FOR INSERTION INTO FLOOR. (THE STONES IN FRONT ARE SIMPLY PLACED AS SUPPORTS.)

though its upper curve is but rudely fashioned, its lower part, as we shall see, was definitely shaped with a view to fixing it in an upright position. The fore-part of this tomb had been destroyed, and the slab lay in the left-hand compartment of the back of the vault. There can be no question, therefore, of its having been part of the door-blocking, the entrance itself having long disappeared, and indeed such blockings always consist of comparatively small rough stones. There were no deep pits in this tomb, but it may have stood beside some clay coffin placed on the floor. It lay below the stratum in which remains of L. M. III *larnakes* occurred, and in the opinion of the excavator belonged to the M. M. III level.³

¹ Schliemann, *Mycenae*, p. 161.

² E. J. Forsdyke, *The Mavro Spelio Cemetery at Knossos* (B. S. A., xxviii, p. 243 seqq.;

see pp. 248 and 255, Fig. 7).

³ These supplementary details have been kindly supplied to me by Mr. Forsdyke.

That it was originally set upright in the ground appears from an interesting feature in the slab itself. At about a foot from the ground, as is clearly shown in the phototype (Fig. 45), the surface of the stone was bevelled off below from a horizontal line,¹ so as to produce a wedge-shaped section easier for insertion in the 'kouskouras' floor. The unsymmetrical curve of the top of the stela contrasts with the precision of the bevelling below, but it is possible that it was originally of a more regular shape. No trace of any sculpture is visible on the smooth face of the stone, and we may suppose that, as in the case of the plain stelae of the Mycenae tombs, it had been originally covered with a painted design.

Another example of a tombstone found within a chamber-tomb is afforded by the well-known painted stela from Mycenae. This was found by Tsountas in the later walling that blocked the entrance to a small niche in the inner rock-wall of the chamber, which itself was of circular form.² It is highly probable that it had originally stood above a small burial pit in the main chamber, containing human bones and some painted vessels belonging to the latest Mycenaean epoch. The stela itself, consisting of a kind of sandstone identical with that of one of those from the Shaft Graves, is of special interest as having been used in two very different periods. The stone was originally sculptured, and its face when exposed shows two upper compartments with engraved disks.³ In its later phase it was covered with a thin layer of plaster about 3 millimetres thick, divided into zones of painted designs, the most important of which depicts a row of helmeted warriors armed with round shields and spears, and almost identical in style and costume with the figures on the 'Warrior Vase'. It may indeed be taken to have served again for the grave as re-used to contain the remains of the later occupants to whom the Late Mycenaean vases belonged. A double-axe motive is repeated on the sides.

Two other stelae were found in the entrance to the tomb, though they cannot be regarded as parts of its regular blocking. One of these was plain, the other showed incised decoration consisting of curves and chevrons. These stelae were of the same kind of sandstone as that above described.

In the rectangular chamber at Dendra near Midea—rightly regarded by Professor Persson as a cenotaph⁴—two stelae were set near the right wall,

¹ The lower section of the slab is somewhat obscured in Fig. 43 by the blocks used to fix it in an upright position for my photograph.

² 'Εφ. 'Αρχ., 1896, pp. 2-22, and Plates 1 and 2.

³ Tsountas, 'Ανασκαφαὶ τάφων ἐν Μυκῆναις,

'Εφ. 'Αρχ., 1888, pp. 127, 128, Figs. 4, 4 a. Cf., too, Tsountas and Manatt, *Mycenaean Age*, p. 152, and Fig. 53.

⁴ A. W. Persson, *Kungagraven i Dendra, Goldfynd och andra fynd från Utgrävningarna, 1926 och 1927* (Stockholm, 1928), p. 135 seqq.

facing a table for offerings, while at the back of the tomb was a hearth and a sacrificial platform. It was thus a house of the dead; but there was no trace of interment. The stelae here were rude menhirs of oblong shape and with more or less rectangular projections above—like those of some Trojan ‘idols’—representing the heads.¹ In this case the upright slabs—as in their origin, no doubt, all gravestones—stood for the departed themselves and supplied material dwelling-places for their ghosts.

That stelae were also connected with sepulchral vaults of the bee-hive class is shown by the discovery of remains of such in the interior of the *tholos* near the Argive Heraeon at the time of its exploration.² Together with remains due to the falling in of the vault, there came to light a fragment of a stela of dark stone, 90 centimetres high and 40 cm. broad and thick, with a piece of lead adhering to its damaged upper surface, which indicated that another block had been attached to it, or a breakage mended.³ Near this was another smaller fragment of the same or of another stela, in which was an oblong socket for the insertion of the upright stone. Stamatakis, who explored the chamber, supposed that there had been some stone platform on the top of the *tholos* upon which stelae were set. But the presence of funereal monuments within chamber-tombs, as well as in the cenotaph cited above, makes it more probable that in this case, too, the stelae had been set up on the floor of the vault where their individual relationship to the interments would be clearly marked. The evidence of careful socketing in a stone base itself illustrates Schliemann’s observations regarding the stela found over the Third Shaft Grave.

Towards the close of the second phase, B, of the First Late Minoan Period, about the middle, that is, of the fifteenth century B.C., to which epoch the latest dated objects in the Shaft Graves belong, we must suppose that the contents of the original pit-graves in the floors of the great vaults, having, *ex hypothesi*, been transferred to their later resting-places, the stelae were set up—this time in the open—above the remains with which they were respectively connected.⁴

Somewhat later again, as the full scheme for the new arrangement was completed, the more perfect stelae were set up on the slightly sloping pave-

¹ *Op. cit.*, p. 147 (Figure). Shallow borings are visible at intervals, such as often appear on menhirs for the purpose of anointing.

² Stamatakis, *Περὶ τοῦ παρὰ τὸ Ἡραῖον καθαρισθέντος τάφου* (*Ath. Mitth.*, 1878, p. 271 seqq.).

³ *Op. cit.*, p. 276.

⁴ There is no objection to the view that the stelae above Grave VI may have been in the open from the beginning, though originally set up at a lower level.

ment above the 'Circle of Graves', which itself in some sort perpetuated the tradition of the great bee-hive vaults in which the graves had originally lain. The final arrangement of the stelae, according to Belger's restoration, is shown in Fig. 44, the storied side of the stelae looking towards the setting sun.

Transference of Remains to Grave Circle within Citadel Walls.

The paved circular area now formed served as a place of funereal cult in honour of the great departed. The stone fence that surrounded it, con-

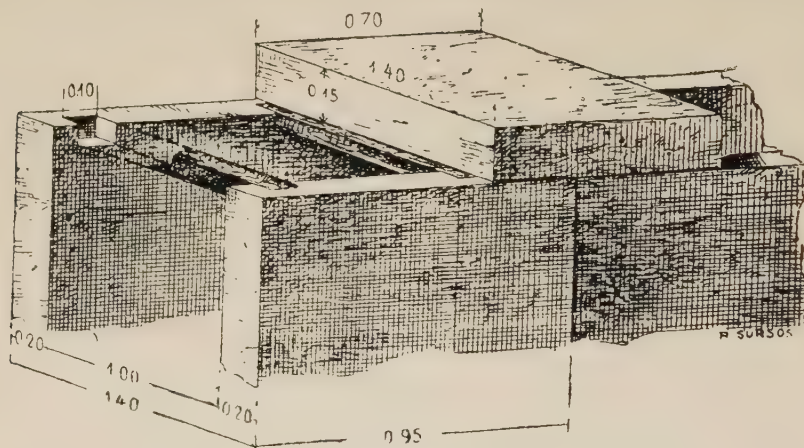


FIG. 46. ORTHOSTATIC STONE FENCE ROUND THE PAVED AREA ABOVE 'CIRCLE OF GRAVES', SHOWING DOWEL HOLES FOR WOODEN STRUTS. (FROM KARO, *ATH. MITTH.*, 1915.)

sisting of double rows of limestone orthostats with a filling within and slabs above, having an entrance on the North, has a special constructive interest. The orthostats, as is shown for the first time in Dr. Karo's restored view reproduced in Fig. 46,¹ were provided with mortice holes for cross-pieces of wood like the orthostatic West wall of the Palace at Knossos, though in this case the sockets, instead of being dove-tailed as there, are square-cut. Here, too, in a slightly inferior shape, we recognize a very early Cretan condition. It is to be noted that the façade slabs of the 'Atreus' Tomb and the orthostats of the frieze which, as is shown elsewhere, probably adorned the walls of the dromos in the original arrangement, show dowel holes of the earlier dove-tail form seen in the West Palace wall at Knossos, and these structural features of the great Mycenae monument at the same time date from the Third Middle Minoan Period.

It is clear that the enlargement of the City wall of Mycenae had

¹ Schliemann's 'pattern of the slabs enclosing the Agora' (*Mycenae*, p. 117) can only be regarded as a pure invention of the draughtsman.

been planned about the time of the transference of the royal and princely remains to the site just outside the old wall line. The Lions' Gate, which belongs to this new work, shows the 'antithetic scheme' of lions (or other

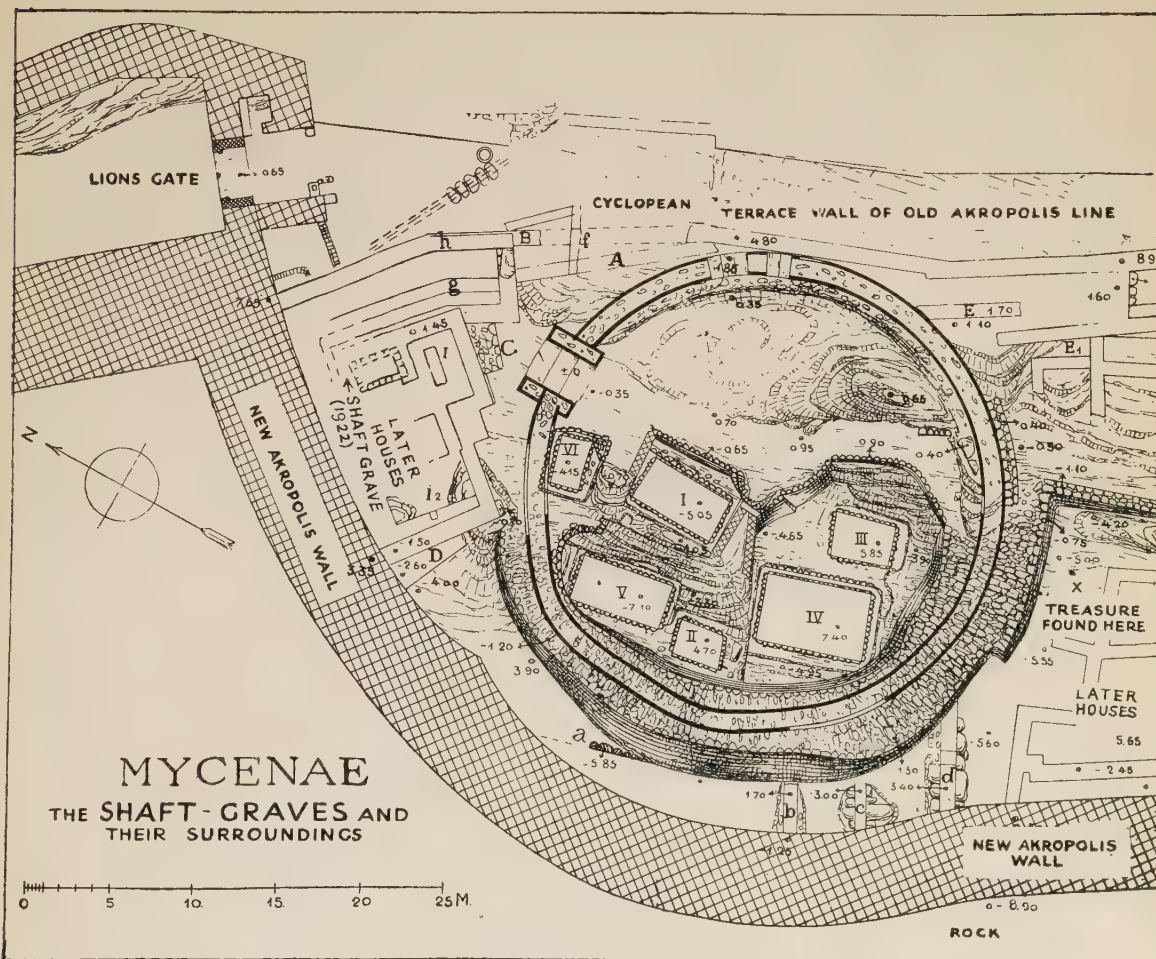


FIG. 47. THE GRAVE CIRCLE AT MYCENAE AND ITS SURROUNDINGS, SHOWING THE BULGE IN THE ENCEINTE WALLS. (BASED ON PLANS OF BELGER, KARO, AND B. S. A.)

animals) heraldically grouped on either side of a column that was current to an exceptional degree in the last half of the First Late Minoan Period. It is probably the work of an artist who had studied in the insular school, and its roughnesses had been doubtless finished off with a coating of thin stucco, to which brilliant colouring had been applied.

This extension of the citadel wall had seemingly been originally planned simply to include the plot containing the new sepulchral vaults and other graves originally made there, like the Sixth, only separated from it by

a narrow passage. But, as the plan developed into the formation of the 'Grave Circle' above, greater room was needed for its supporting terrace-wall, combined with the need of preserving a passage-way. Hence an alteration was made in the neighbouring wall-line, which here—by an evident afterthought of its builders—bulges out to afford the necessary space, afterwards continuing on its arranged course. The kink is visible in Fig. 47.

THE BEE-HIVE TOMBS AND THE PLACE OF THE 'TREASURY OF ATREUS'
AND 'TOMB OF CLYTEMNESTRA'.

It will be seen, from what has been said above, that—except for a fair amount of native Middle Helladic pottery in some of the deposits, notably in the *ex hypothesi* original Grave pit No. VI, and a Cycladic and even trans-Aegean element in some of the female ornaments—the relics contained in the Shaft Graves were of an overwhelmingly Minoan character. Some, doubtless, like the stelae that reflect the same Minoan tradition, were made at Mycenae itself, and occasional divergences from the prototypes mark an incipient 'colonial' style, such as is characteristic of later Mycenaean Art.

The pure Minoan fabrics—including the vases in the late polychrome style, above illustrated, which must be regarded as an offshoot of the Cretan—go back in cases to the earlier M.M. III phase.

It is this early element in the Shaft Graves—which must be generally acknowledged to date from the last Middle Minoan phase—that has been urged as convincing proof of their non-connexion with the bee-hive tombs of Mycenae.

Fresh arguments in favour of the comparatively late date of the great tholoi have, moreover, been lately urged as the result of the recent researches of the British School at Mycenae, and have been set forth by Mr. Wace in his careful study in the twenty-fifth volume of the *Annual*. These rest mainly on two grounds: firstly, the actual result of the finds beneath the threshold of the 'Atreus Tomb', and, in the second place—as especially regards the finest of the Bee-hive Vaults, the so-called 'Treasury of Atreus' and the 'Tomb of Clytemnestra'—on the advanced phase of structural evolution that they illustrate.

To the finds beneath the threshold there will be occasion to return.¹ With regard to the tholoi themselves, Mr. Wace divides them into three groups, answering to successive stages in structural evolution.² In the first

¹ See below, pp. 76 and 88, note 3.

² *B. S. A.*, xxv, pp. 388–90.

group¹ the tombs are built of rubble limestone masonry, the doorways, though of large blocks, are roughly constructed, and there is as yet no trace of a relieving triangle above the lintel. The second group² shows poros ashlar masonry in the dromoi, the doorways are constructed of large blocks of dressed conglomerate, the lintel blocks are longer, and, in the case of the Panagia Tomb, there are distinct traces of a relieving triangle. Finally, in the third group, to which the 'Treasury of Atreus' and the 'Clytemnestra' Tomb are assigned by him,³ both the dromos and the tholoi themselves are built of ashlar work in conglomerate, the relieving triangle or tympanum is fully developed, and the façade is splendidly adorned—the relieving triangle in both cases having been masked by ornamental work in coloured stone.

Early Appearance at Mycenae of fully Minoized 'Atreus' Type of Tholos-tomb.

Greatly as the archaeological world is indebted to Mr. Wace for his painstaking study, and logical as the above results may be regarded *per se*, the gravest objection must be taken to his chronological conclusions.

It is, for instance, an undoubted fact that rubble limestone masonry was the primitive method of structure. This is fully borne out by the parallel series of bee-hive tombs existing on the plain of Mesarà and its borders in Southern Crete, some of which go back to the beginning of the Early Minoan Age. But the chronological value of such a feature is altogether lost when we reflect that the gradual decline in the skill of the Mycenaean and Minoan builders' craft would naturally have led—and did lead—to a reversion to the same primitive methods in the construction of sepulchral vaults. The truth is that much of the evidence can be read both ways. The 'Atreus' and 'Clytemnestra' Tombs at Mycenae, structurally the most advanced, are probably the earliest on the site in point of time, and the different 'groups' in reality overlapped one another.

So, too, the conclusions based on the appearance of the relieving triangle leave out of sight an unknown quantity that we cannot at present control. The evidence, to which attention will be called below,⁴ may be taken to establish the fact that the construction of the 'Atreus' Tomb and its fellow

¹ The Cyclopean Tomb, the Epáno Phournos, and the Aegisthos Tomb are included in this.

² Consisting of the Panagia and the more distant Heraion Tombs.

³ In the case of the 'Tomb of the Genii'

—placed by Mr. Wace in his Third Group—he says 'the ashlar work in conglomerate was reduced to a minimum on account of the expense'. *Op. cit.*, p. 389.

⁴ p. 72 seqq.

goes back well within the limits of the Third Middle Minoan Period. But in these we already see Minoan features organically incorporated in a fully developed form of tholoi with decorative tympana. We are forced, then, to seek the antecedent stages of this feature elsewhere than in Mainland Greece.

In Crete, indeed, as already remarked, the early vaulted tombs of Mesarà¹ afford a real parallel to the Mycenaean type. The true bee-hive construction of these may be inferred not only from the quantities of fallen rubble masonry found within their walls, but from the fact that in a tholos at Platanos the actual coping stone of the cupola was found.² The larger tholos at that place, which was 13·10 metres in diameter, and, presumably, of about the same original height, must have approximated in its dimensions to the tomb of Clytemnestra, the diameter and estimated height of which was 13·40 metres.³ These primitive ossuaries of Southern Crete—of which an isolated example has also been found inland of Mallia on the Northern Coast⁴—have a special interest as fitting on to a Libyan type,⁵ which is in fact at home throughout a wide North African region. This differs, however, in a fundamental detail of its plan from the Mycenaean type, the approach to the entrance being, not a dromos cut through a slope, but a pit dug down from above. This is also the African type, the reflection of that seen in the primitive circular dwellings, the later *Mapalia*.

It looks, however, as if even among those primitive vaults there was a tendency towards the formation of a relieving triangle. Although, owing to the rude construction, only the lower part of the walls has, in most cases, remained standing, the relatively massive lintels over the low doorways are in more than one instance humped above so as to throw the weight of the superimposed masonry on its extremities. Both the huge lintel of the Treasury of Atreus and that of the Lions' Gate present the same humped outline, a survival in these cases from a similar antecedent stage.⁶

So far as our present knowledge goes, there was an appreciable interval of time between the date when the latest bee-hive ossuaries of the Mesarà

¹ See, especially, Dr. Stefanos Xanthudides, *The Vaulted Tombs of Mesarà*, translated by Professor Droop, and the Preface by A. E.

² *Op. cit.*, p. 91, and cf. Karo, *Arch. Anz.*, 1916, p. 155.

³ Wace, *B. S. A.*, xxvi, pp. 361, 362, and Pl. LVIII.

⁴ It was observed by me near the village of Krasi and has since been explored by Mr. Marinatos of the Candia Museum. It proved

to contain pottery and other relics dating from E. M. II and M. M. I.

⁵ See my Huxley Lecture (*R. Anthr. Inst. Journ.*, 1925), *Early Nilotic and Egyptian Relations with Minoan Crete*, and *Palace of Minos*, ii, Pt. I, p. 36 seqq., and the comparative illustrations of Fig. 17, p. 38.

⁶ See *Palace of Minos*, ii, Pt. I, pp. 41-3, and Figs. 18 and 19.

type were in use in Crete, and the appearance of the earliest of the Mycenae vaults, though not such a long interval as has been sometimes assumed. The primitive type was still commonly used down to M. M. I and, in one case at least—the smaller *tholos* at Hagia Triada—the last ceramic elements represent the early phase of M. M. II.

On the other hand, a remarkable circular spring chamber lately excavated by me at Arkhanes—an important Minoan site some seven miles inland of Knossos—clearly supplies an example of a true bee-hive structure formed of good limestone blocks. The sherds found within it dated from the very beginning of the First Late Minoan Period, and it thus appears that, for this purpose at least, vaults resembling in construction those of Mycenae were built in Crete at a more or less contemporary date.

The distribution of these tholoi in Mainland Greece, notably along the West Coast of the Morea, is itself suggestive of a Cretan origin. On the other hand, the known built tombs such as existed in Crete during the last age of the Knossian Palace, of which the 'Royal Tomb' at Isopata is by far the most important, are of oblong form with 'keeled' vaulting. Negative evidence is itself not conclusive. In default, however, of further discoveries the strong hold which a late variety of the beehive form of tomb is seen to have had in much later Mycenaean times at Assarlik on the Old Carian coastlands¹ may warrant us to look in that direction.² It seems probable that a part of that Anatolian coast came within the area of true Minoan culture at an early date, and this might explain how it is that the finest and earliest of the Mycenae vaults make their appearance in an already Minoized form.

An analogy for the introduction of the bee-hive tombs into Mainland Greece through Minoan agency has now been supplied by the evidence, recently acquired, that the rock-cut Chamber Tombs with their dromoi—the most characteristic and widely diffused sepulchral type of Mycenaean Greece—themselves reflect a form already known in Crete in the age preceding the

¹ W. R. Paton, *Excavations in Caria: J. H. S.*, 1887, p. 66 seqq. The ground-plan of the vault, however, was in these cases oblong, and the vault disproportionately high. The grave mounds themselves were surrounded by a round wall.

² Mr. Wace, *B. S. A.*, xxv, p. 395, was led, independently, to look in the same direction. After mentioning the fact that at Kolophon the American Expedition has recently ex-

cavated a tholos tomb of the Third Late Minoan Period (*Art and Archaeology*, xiv, p. 359), and the Early Iron Age tombs found by Paton and Myres at Assarlik, he observes: 'These facts make it probable that when the exploration of the early remains of Western Asia Minor can be undertaken, some clue to the origin of the tholos tomb may be found there.'

conquest. The recently discovered Mavro Spelio cemetery at Knossos,¹ on the steep opposite the Palace, beyond the stream, consists of rock-tombs, the fundamental form of which is essentially of the same type as that so widely diffused in the Late Minoan Age. But the original contents of some of the Mavro Spelio vaults go back to the second phase, *b*, of M. M. II,² and to a date—at least *c.* 1800 B. C.—considerably anterior to the earliest known examples on the Mainland side. A tomb of this class, however, has been recently excavated by Mr. Blegen at the Argive Heraeon, containing, as he kindly informs me, pottery of the Middle Helladic class resembling specimens found in the Shaft Graves and showing that this type of tomb was known on the Mainland side before the close of M. M. III.

The history, then, of these Chamber Tombs at Mycenae runs parallel with that of the great tholoi. On the other hand, from the early appearance of them in Crete, we are able with great probability to derive the sepulchral type itself from the more elaborate form of rock tomb in vogue at Beni Hasan and elsewhere in Twelfth-Dynasty Egypt, and naturally familiar to the Minoan Cretans at that period of intensive contact.³ The sepulchral pits excavated within some of these chambers in the Knossian cemetery answer, in fact, to the mummy pits of the Egyptian series. At the same time the *larnakes* on the floors—some of which were also of Middle Minoan date—illustrate the alternative arrangement, which there is reason to believe was also followed in the contemporary bee-hive vaults of Mycenae.

Early Use of Bronze Saw by Minoan Lapidaries.

On the technical side the most conspicuous instance of reading the evidence backwards is Mr. Wace's contention that the use of the saw was carried to the greatest proficiency in the latest structures.⁴ The earlier cutting on hard materials at Knossos was executed by means of bronze saws, with an almost straight edge, such as those found in deposits at Knossos⁵ and Hagia Triada, belonging to the latest phase of M. M. III or the very beginning of L. M. I. Saw-marks of this fine kind are found on

¹ See *P. of M.*, ii, Pt. II, pp. 555–8, and the publication of the explorer, Mr. E. J. Forsdyke, to appear in *B. S. A.*, xxviii. His preliminary account was communicated to the Society of Antiquaries, Oct. 20, 1927.

² *P. of M.*, ii, Pt. II, p. 558, Fig. 353 (from a photograph by Mr. Forsdyke).

³ Cf. A. E., *op. cit.*, p. 557.

⁴ *B. S. A.*, xxv, p. 392: 'Later, as technical

skill progressed, the Mycenaeans learnt to saw and dress the hard conglomerate for ashlar masonry'. Cf., too, *op. cit.*, *passim*.

⁵ e. g. *P. of M.*, ii, Pt. II, p. 630, Fig. 393, *d*, *i*, and Fig. 394, 5. The specimen from the South House, Fig. 393, *j*, shows a more pronounced anterior curve and may be regarded as a transitional type.

remains of various hard materials belonging to the earlier Palace at Knossos, and are seen on the conglomerate slabs and jamb that were re-used in the pavement of the West Porch itself, dating from the latest M.M. III phase. They are well marked on the very beautiful rosette and half-rosette reliefs in a close-grained grey-green limestone which, as we shall see, belong to deposits belonging to the earlier as well as the later stage of that period.

Our late foreman, Ali Aga Baritakis, who had great experience of the traces of such technical methods, on visiting Mycenae was struck with the absolute correspondence of the saw-work visible in the case of the conglomerate bases beneath the engaged columns of the 'Atreus' façade with those of the decorative bands at Knossos and the early Knossian technique in general. The same comparison extends to the decorative bands of hard grey limestone similar to, if not identical with, the Cretan, from the same façade. Early elements at Tiryns show the use of a similar form of saw, but Baritakis remarked that in the later work on that site saw-marks of a very inferior kind were observable, showing that they had been produced by a rounded implement, which was liable to bite irregularly into the surface of the softer stone then in use.¹

In other words, the use of the saw in cutting conglomerate and other materials, so far from being a late characteristic, is a typically M.M. III technique, parallel with similar work at Knossos. There, indeed, the masons were but following in the wake of the native lapidaries who, with the aid of long instruction from Egypt, had acquired the art of attacking stones as hard as obsidian by the opening of the Middle Minoan Age. At Knossos, too, this capacity declined in the last Late Minoan Period.

Saw-marks of the fine early class are very perceptible on the cut surfaces of the sides and backs of certain decorative bands of hard greyish limestone, some of them in a special way connected with great portals. Within borders worked into curves, accompanied above and below with delicate grooves in cavetto, the surface of these bands presents a series of rosettes or elongated half-rosettes, divided by 'triglyphs' in a magnificent style of relief.

M. M. III Reliefs of Knossos parallel with those of Mycenae Façades.

For the dating and destination of these relief bands recent researches on the Palace site at Knossos—supplementing the similar results of earlier discoveries—have brought out evidence of a convincing kind. The most splendid examples of this kind of work are the fragments of a rosette band,

¹ This observation is corroborated by Dr. Mackenzie.

brought out in the area of the South Propylaeum, which, from the depth at which they occurred, must be associated with this structure in its earlier and broader form as executed in the earlier phase, *a*, of M. M. III.¹ A view of one of these fragments is given in Fig. 48 and the section of the rosette in Fig. 49, by Mr. Theodore Fyfe, will give some idea of the delicacy of the



FIG. 48. FRAGMENT OF ROSETTE BAND FROM M. M. III *a* PORTAL OF S. PROPYLAEUM, KNOSSOS.

work. A very precise chronological limit, moreover, has since been supplied by the fragments of a series of similar decorative reliefs belonging to bands of rosettes, half-rosettes, and spirals found in the area of what was undoubtedly in the last Middle Minoan Period an important entrance Porch at the part where the Stepped Corridor abutted on the South-West Palace angle.² This South-West Porch was destroyed, and went entirely out of use together with the adjoining part of the old South Corridor, at the time of

¹ See *P. of M.*, ii, Pt. II, pp. 694-7, and Figs. 436, 437.

² *Ib.*, Pt. I, p. 161 seqq. and Figs. 83, 84.

the great seismic overthrow towards the close of M. M. III *b*. Finally, a well-preserved band of half-rosettes, consisting of the same close-grained greenish grey limestone, reproduced in Fig. 51, was found in relation to what we knew to have been another entrance to the Palace near its North-West corner.¹ It is not quite certain whether this represents a surviving feature of the Middle Palace or a part of the building, as restored, still within the lower limits of the M. M. III Period, after the great catastrophe, but in either case its relatively early date is unquestionable. It preserves the older style of decoration, practically unchanged, down to its minutest details.

Can it be doubted that the decorative bands from the 'Treasury of Atreus', alike in style as well as in details of the designs, and practically of the same material, are the work of Minoan sculptors of the same great age?

To take a crucial example, the fragment of a frieze from the façade of this tomb given in Fig. 50² not only shows the same elongated half-rosettes with twelve double petals, but 'tongues' from which these spring present the similar cross-bars as those of Fig. 51 from Knossos. The 'Elgin' fragment, Fig. 52, supplies another good comparative example. The decoration of the central space consists in the same way of linked spirals.

The preservation of these fragments is by no means so fresh as that from the Knossian Palace, but an examination of the whole series shows that the style of the originals must have been very

much on a par with that of the Cretan examples. The 'Atreus' façade, in short, is a M. M. III work and may well, like the decorative bands of the South Propylaeum at Knossos, and, in all probability, of the South-West

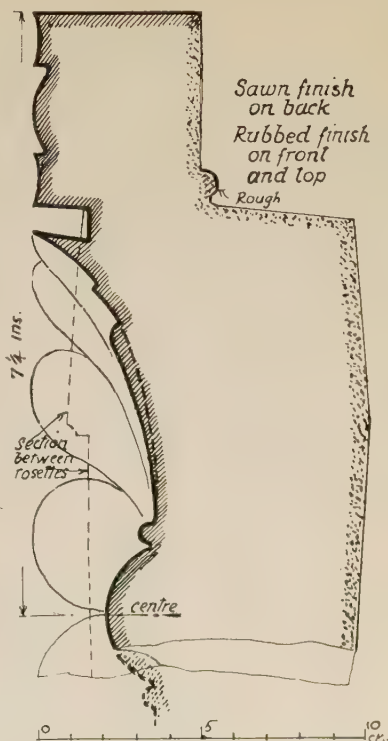


FIG. 49. SECTION OF ROSETTE.

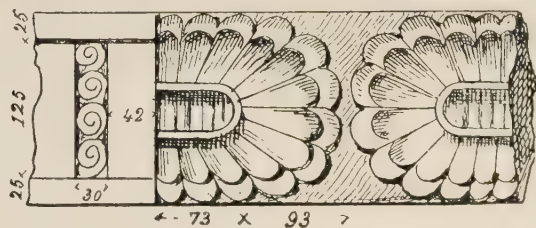


FIG. 50. PART OF FRIEZE FROM 'ATREUS' TOMB.

¹ *Ib.*, Pt. II, pp. 590-4, and Figs. 368, 370. ² Perrot, *Hist. de l'Art, &c.*, vi, p. 628, Fig. 277.

Porch, go back to its earliest phase. We may further conclude that it was the work of decorative artists trained in the great Knossian school.

Amongst other details of the façade that point to the same conclusion



FIG. 51. LIMESTONE BAND WITH HALF-ROSETTES AND 'TRIGLYPHS' FROM ORIGINAL ENTRANCE PORTAL, N.W. OF PALACE, KNOSSOS.



FIG. 52. PART OF LIMESTONE BAND WITH HALF-ROSETTES AND 'TRIGLYPHS' FROM FAÇADE OF 'ATREUS' TOMB, BRITISH MUSEUM.

are the finely executed decorative bands of connected spirals in a broad and delicate style which in the 'Atreus' Tomb formed the uppermost decorative band immediately beneath the cornice.¹ A fragment of this in the Nauplia Museum is reproduced from a drawing of Monsieur Gillièron in Fig. 53.² It will be seen at once that it is identical both in design and style with the similar band (Fig. 54)—restored from other fragments—found in an exactly parallel

¹ Compare Perrot's restoration of the façade (*Hist. de l'Art, &c.*, vi, Pl. VI).

² Compare the more imperfect fragment in Perrot, *op. cit.*, p. 625, Fig. 273.

association with remains of bands of rosettes and half-rosettes in the area of the South-West Porch at Knossos, the existence of which was cut short before

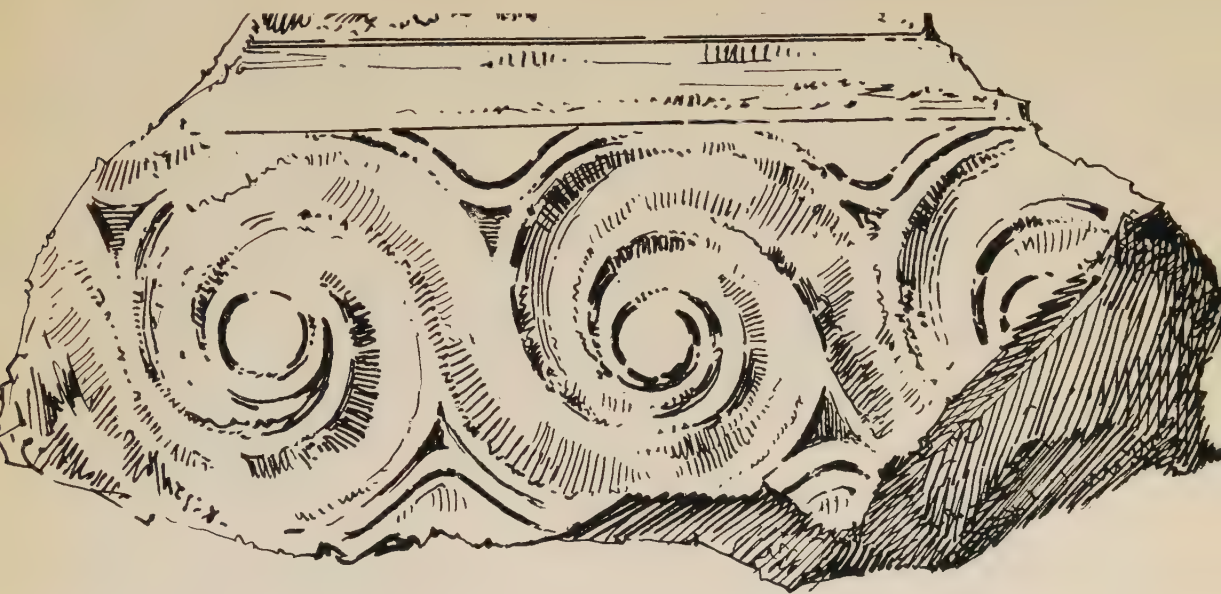


FIG. 53. SPIRAL BAND FROM MYCENAE IN NAUPLIA MUSEUM.

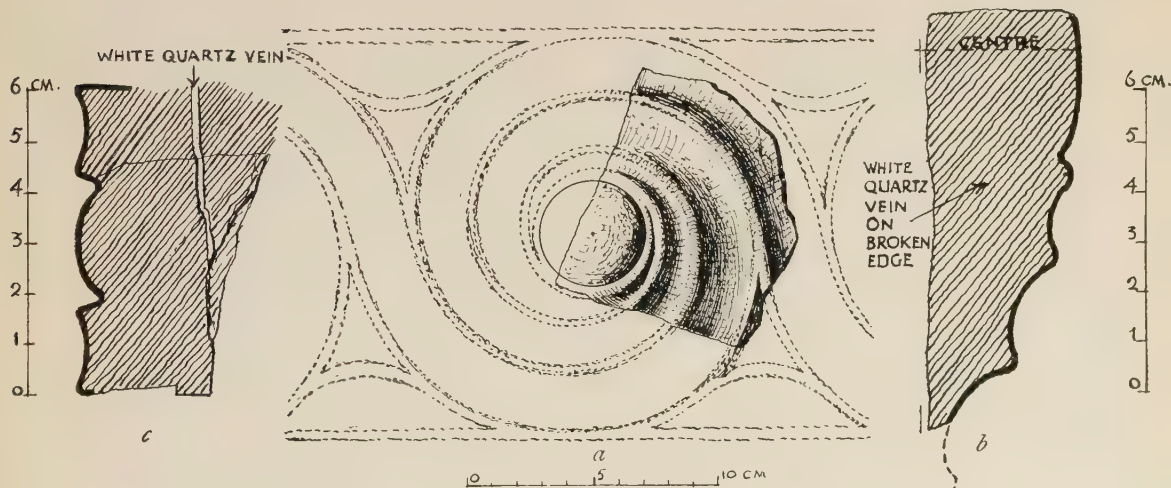


FIG. 54. PART OF SPIRAL BAND (RESTORED FROM OTHER FRAGMENTS) AND SECTION OF BORDER: S.W. PORCH, KNOSSOS.

the end of M. M. III. Similar sculptured bands were found in connexion with the Tomb of Clytemnestra.¹ The evidence of original inlays in the centre of the spirals, noteworthy in the case of one or more decorative bands from the

¹ Wace, *J. H. S.*, xxv, p. 113, Fig. 2.

'Treasury of Atreus', is certainly in itself a feature not to be found in the similar bands from Knossos, and leads us in the direction of the alabaster frieze from Tiryns with its kyanos inlay. But the practice of inlaying was so widespread in the case of M.M. III stone vessels of Knossian origin that it is unsafe to attach much importance to this negative fact. We meet the evidence of inlays again in the case of the gypsum relief of the galloping bull.¹

The half-rosette and triglyph motive was already copied in wall-paintings of the M.M. III Palace at Knossos, such as those from the Thirteenth Magazine and the Miniature 'Temple Fresco' which we now know to have belonged to the 'Middle Palace'. As a traditional feature in representations of Minoan or Mycenaean buildings, degenerate copies of this design long survived in wall-paintings on the Mainland side, as can be seen from the fresco fragment found at Orchomenos.² So, too, the motive appears impressed on glass paste beads of relatively late date and as an architectural base to the design on the great gold ring from the Tiryns Treasure. But these are one and all copies that do not affect the date of the great original group.

In Crete itself there is no example of the half-rosette and triglyph band in stone-work dating from Late Minoan days. On the Mainland, however, we see a stone relief of this kind preserved in the well-known alabaster frieze found in the Vestibule of the Men's Megaron at Tiryns.³ Both the more complicated character of the decoration and the inlays of blue glass paste as well as its actual structural associations point in this case to a later date, but the alabaster material was itself in all probability imported from Crete, and every detail of the ornament is still Minoan.

In view of the existing evidence, it is perhaps hardly necessary to dwell on Mr. Wace's attempt to bring down the date of the 'Treasury of Atreus' over three centuries later than that indicated by the decorative parallels above given, mainly on the ground of a painted sherd discovered by him beneath its threshold. This sherd,⁴ which is in the fully developed 'metope' style, belongs—whatever its exact position within that series—to the latest Mycenaean class, equivalent in date with L.M. III *b* in Crete. To use it

¹ See below, p. 79.

² H. Bulle, *Orchomenos I*, Pl. XXVIII.

³ Schliemann, *Tiryns*, p. 248 seqq., and Pl. IV.

⁴ See *B. S. A.*, xxv, p. 387, Fig. 76 *a*, and compare Forsdyke, *B. M. Cat., Prehistoric Aegean Pottery*, p. 203, Fig. 286, and p. 206, A 1075, 1 (Mycenae). I agree with Mr. Fors-

dyke's view that the 'triglyph and metope' visible on some of these types ultimately go back to the architectural designs such as are seen on a 'Palace Style' amphora (L.M. II) from a tomb at Zafer Papoura (A. E., *Preh. Tombs*, &c., Fig. 144). But there is a long gap in ceramic evolution between the two groups.

as a base for dating this magnificent structure, the façade of which shows so many close correspondences with the finest sculptured work of the M. M. III Palace at Knossos, is peculiarly unfortunate, since the ceramic group to which it belongs shows a complete divergence from the current style of Late Minoan Crete.

But in any case this particular piece of evidence loses its force when it is remembered that the threshold slabs under which it was found themselves represent a wedge of poros material between its conglomerate side-blocks. It is difficult to believe that an architect capable of such a structure was unable to complete the threshold in the same material.¹ It is clear, in fact, that some of the small objects found within the 'Treasury' belonged to a considerably earlier period than the sherd.

The Elgin Slabs with Bull-reliefs found near the Entrance to the 'Atreus' Tomb, and their Relation to the Painted Stucco Frieze of the North Entrance Porticoes at Knossos.

The architectural indebtedness of the façade of the 'Atreus' tomb, as visible in its decorative reliefs, to the Middle Minoan Palace at Knossos is curiously supplemented by the evidence afforded by the remains of two sculptured slabs obtained by Lord Elgin from the entrance area of the Tomb and now in the British Museum.²

¹ Mr. Wace, in defending his thesis (*J. H. S.*, 1926, p. 111), says that 'the L. H. III potsherds and other small objects' were found 'under the threshold of the tomb under the Southern big conglomerate block (not under the central wedge of poros as Sir Arthur says) which was still securely mortared up to the other blocks with the original yellow clay. This means that the objects thus enclosed must have been in place when the tomb was in use, and long before earth accumulated in the dromos in later times, and partially obstructed the entrance.' I must apologize for my somewhat inexact expression (*J. H. S.*, 1925, p. 264, and cf. p. 75) as to the position of the sherd and other objects as being under the threshold. But, if the threshold was later patched up, they may well have worked themselves in beneath the side-block. That the vault was re-used at the very end of the Mycenaean Age is a phenomenon characteristic of a series of bee-hive tombs throughout the

Peloponnese. So, too, *op. cit.*, p. 111, Mr. Wace says: 'The Tomb of Clytemnestra is dated also by early L. H. III sherds found by us under the walls of the tholos, and by an unplundered grave found by Professor Tsountas in the dromos.' Here one statement contradicts the other. The early elements in Tsountas's grave pit correspond in style and fabric with those of a L. M. Ib chamber tomb at Mycenae. The inlaid ivory wing from the same pit (*B. S. A.*, p. 371, Fig. 81, a) certainly seems to belong to the same good period, and shows the 'notched plume' motive in a fine style.

² See Mr. F. N. Price's exhaustive study of the evidence in *B. M. Cat. of Sculpture* (2nd ed., 1929), pp. 16, 27. They were unquestionably the two unlabelled slabs shipped in the *Braakel* from Piraeus early in 1906, and had been excavated by Lord Elgin's agent, Mr. Vlasopuli, in this area.

As I hope to demonstrate more fully elsewhere,¹ the reliefs on these slabs, one showing the head of a coursing bull and part of an olive tree, the other the fore-feet of a bovine animal in a stationary position, belong to two contrasted



FIG. 55. PAINTED STUCCO RELIEF OF HEAD OF CHARGING BULL, W. PORTICO OF N. ENTRANCE, KNOSSOS.

compositions of which, in variant forms, we meet with recurring evidence among Minoan remains. The most perfect examples are those exhibited on the gold cups from the Vapheio tomb. On one of these we witness a drive of half-wild bulls of the *Urus* breed, accompanied by sensational 'Cow-boy' feats. On the other are seen the successive stages of the capture of a bull by means of a decoy cow. But the monumental history of these artistic groups leads us almost inevitably back to the magnificent painted stucco reliefs that adorned the back walls of the two colonnades that overlooked the North Entrance of the Palace at Knossos, and which go back to the earlier phase of

the Third Middle Minoan Period.² In this case the evidence of the West Portico is clear, indicating the existence of several bulls and including the head of a charging animal, and the leg of a female acrobatic figure. As regards the East Portico we have only a fragmentary indication, but there is at least a strong probability that the subject of the painted decoration resembled the less sensational of the two compositions. The noble bull's head found among the remains of the West Portico is shown from the folds of its dewlap to be that of an animal charging or coursing with its head down. (See Fig. 55.)

¹ I must refer for a fuller statement of the subject to *Palace of Minos*, iii, § 75. I called attention to the bearing of some recent discoveries on the matter in a communication made at the Annual Meeting of the British School at Athens on Nov. 6, 1928. (See report

in *Times* and *Manchester Guardian* of Nov. 7.)

² For the painted reliefs of the Northern Entrance Passage and their relation to the Vapheio compositions I must refer to my forthcoming third volume of the *Palace of Minos*, § 74.

But when we come to compare this with the head of the charging bull, executed at about half the scale of the other, on the Elgin fragment, it is impossible not to be struck with the similarity both in position and detail. Here, too, we see the ear cocked forward in the same way and the same



FIG. 56. CHARGING BULL COMPLETED FROM RELIEF ON GYPSUM SLAB FOUND NEAR ENTRANCE OF 'ATREUS' TOMB, MYCENAE.

protuding tongue, while the remains of the olive-tree in the background, such as we know to have accompanied the Knossian reliefs, completes the resemblance. The relationship between the Mycenae example and that from the N. Entrance Portico at Knossos is, in fact, greater than any afforded by the Vapheio types. The whole figure of the charging bull as developed from the Elgin fragment, drawn for me by Monsieur Gilliéron, fils, in Fig. 56, supplies, indeed, a good scheme of restoration for its Cretan prototype.

On the other hand, the stationary figure of a bull, of which we have the remains on the other Elgin slab (Fig. 57), might well represent a version of the scene on the Vapheio Cup where the bull is held in dalliance by the decoy cow in preparation for the final scene of lassoing.

The near comparison with the Knossian painted frieze established in the case of the former fragment fits in in a remarkable way with a recent discovery regarding the material of the slabs themselves. They had always been described as of limestone, but an observation made by Mr. E. J. Forsdyke in connexion with the new British Museum Sculpture Catalogue led to a chemical examination proving that they were in each case of gypsum, indistinguishable from that so much used in the Palace construction of Knossos, and of

which, indeed, abundant ancient quarries exist on the opposite hill of Gypsádes.

The material, therefore, as well as the artistic parentage of the designs is Cretan, and it is reasonable to suppose that the stucco frieze of the North



FIG. 57. PART OF RELIEF OF STATIONARY BULL ON GYPSUM SLAB FROM MYCENAE: RESTORED.

Entrance of the Palace, like the M.M. III decorative reliefs such as are seen at its South-Western and North-Western Entrances and its Early South Propylaeum, were imitated at one and the same time. The dowel and clamp holes of the Elgin slabs are identical with those of the reliefs from the tympanum, and are clearly contemporary works. On the other hand, the style as a whole, though on a smaller scale and in a different material, closely approaches that of the painted stucco frieze from the North Entrance at Knossos.

It is certain—from a mere calculation of dimensions—that the frieze to which the Elgin slabs belonged did not form part of the façade of the 'Atreus' tomb. It seems necessary to conclude that this had formed part of the surface decoration of the walls of the dromos itself, which had certainly undergone radical changes. These matters, however, lie beyond my present theme.¹

¹ I have made some suggestions on this head in § 75 of *P. of M.*, vol. iii.

Early Embossed Gold Plates from inside 'Atreus' and 'Clytemnestra' Tombs.

Among the fragments of small gold plates brought out from the 'Atreus' doorway by Stamatakis,¹ one, developed for me by Monsieur Gilliéron, fils, in Fig. 58, formed part of a fine spiral and papyrus pattern of the same class as that which decorated the ceiling of the Orchomenos chamber. From a fragment in painted plaster relief found by the Queen's Megaron at Knossos, it would appear that in its restored form it was covered by a stucco ceiling of similar design.

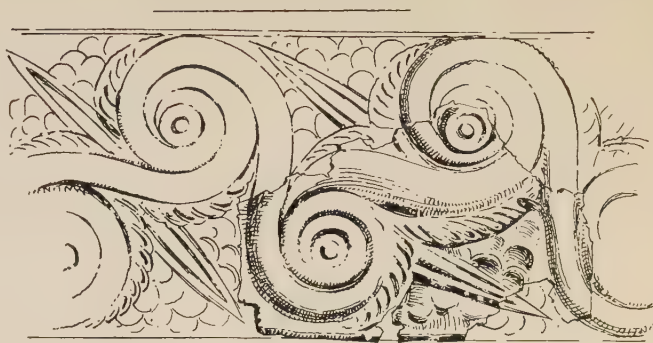


FIG. 58. GOLD PLATE WITH EMBOSSED DESIGN OF SPIRALS AND PAPYRUS. RESTORED BY MONSIEUR E. GILLIÉRON, FILS: ABOUT 2 DIAMETERS.

The fragment of gold plate and the ceilings of Knossos and Orchomenos

show this spiral and papyrus design in its fine early form, also illustrated by Eighteenth-Dynasty Egyptian examples. On the Tiryns frieze² it appears in a form closely dependent on that of the Knossos Megaron.

On the whole it seems safe to place the embossed fragment from the 'Atreus' Tomb within the borders at least of the First Late Minoan Period.

But some of the thin gold roundels found in this tholos have distinctly earlier associations.

A small round plate of thin gold (Fig. 59, *a*)³ found by Stamatakis within the vault shows a triple **S** pattern in a simple form that recalls the tradition of Early Minoan seal-stones.⁴ It must be regarded as a suggestive circumstance that it recurs in a practically identical shape on a series of embossed disks from the Fourth Shaft Grave.⁵

¹ Wace, *B. S. A.*, xxv, p. 334, Fig. 74 *d*.

² Schliemann, *Tiryns*, Pl. V, pp. 298, 299; Rodenwaldt, *Fries des Megarons*, Pl. VII and p. 43 seqq. Dr. Rodenwaldt rightly recognized the close relationship of the Tirynthian design with that of the Knossian fragment reproduced by him, *op. cit.*, p. 45, Fig. 14.

³ Drawn by Monsieur Gilliéron, fils, from the original, enlarged 2 diameters. Cf. Wace,

op. cit., p. 354, Fig. 74, *g*.

⁴ See p. 31, Fig. 17, above, and cf. *P. of M.*, ii, Pt. II, pp. 196, 197, and Figs. 105-7. More developed forms of these **S** patterns are engraved on some of the ivory disks from the tholos at Old Pylos illustrated by K. Müller, *Ath. Mitth.*, xxiv, p. 285, Figs. 7, 8.

⁵ e. g. Schliemann, *Mycenae*, p. 265, no. 409.

Certain other gold roundels, presenting a triquetral arrangement of a somewhat more developed type, were found in the pit explored by Tsountas in the dromos of the fellow tomb of 'Clytemnestra' (Fig. 59, *b*, *c*).¹ The butterflies and argonauts in the same gold foil found with these show a great resemblance to those described by Professor Bosanquet from a



FIG. 59. GOLD EMBOSSED ROUNDELS WITH SIMPLE SCROLLS AND TRIQUETRAS :
a, FROM 'ATREUS' TOMB ; *b*, *c*, 'CLYTEMNESTRA'. ($\frac{2}{3}$).

chamber tomb at Mycenae.² These are dated by the fine amphora³ in the advanced L. M. I *b* style that immediately precedes the 'Palace Style' of Knossos. We may reasonably conclude, therefore, that interments within the 'Clytemnestra' vault itself covered this epoch and go back at least to the first half of the fifteenth century B.C.

In finds of small objects like the above we have interesting evidence or the surviving remains—still sparsely traceable in the great tholoi—of the thin gold plates and roundels such as we have seen were attached to the wooden coffins *ex hypothesi* transferred to the Shaft Graves. In connexion with such attachments it is also important to note that nine bronze nails were found by Stamatakis in the 'Atreus tomb', and another by Mr. Wace in a side crevice under the restored threshold.

Evidence of a more definite kind is supplied by the fragments of stone vases found in connexion with these two closely related tombs—the 'Treasury of Atreus' and the 'Tomb of Clytemnestra'—which have a pre-eminent claim to have contained the remains of the royal dead.

¹ See, too, *B. S. A.*, xxv, p. 354, Fig. 74, *g*. ² *J. H. S.*, xxiv (1904), p. 324, Fig. 1, *a*, *c*.

³ *Op. cit.*, Pl. XIII.

M.M. III Stone Vessels associated with two great Mycenae Tholoi.

In the Dromos of the 'Atreus' Tomb, and doubtless originally derived from it, there were found by Stamatakis twelve fragments of stone vessels.¹ Six of the pieces consisting of grey limestone (Fig. 60) belonged to a cylindrical

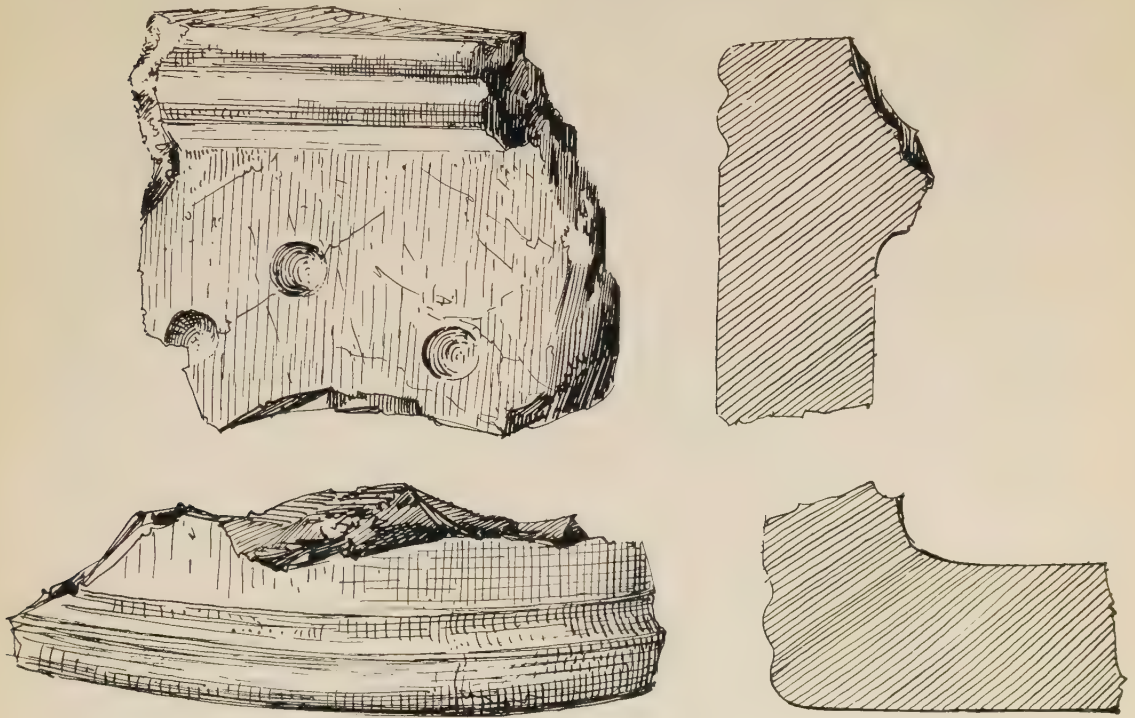


FIG. 60. FRAGMENTS OF CYLINDRICAL POT WITH GROOVES AND HOLES FOR INLAIS :
WITH SECTIONS OF THE SAME : DROMOS OF 'ATREUS' TOMB. ($\frac{1}{2}$)

pot (Fig. 61),² of which part of the lid was also found. This was grooved near to the base and pitted with small hollows as if to receive some filling. These may be thought to have held white plaster, as they are rather shallow, for the inseting of cut materials. But they at least reflect the practice—a special characteristic of the earlier phase of the Third Middle Minoan Period—of inserting circular shell inlays into the sides of limestone vessels,³

¹ The fragments themselves were described for the first time by Mr. Wace in his account of the Tholos Tombs (*B. S. A.*, xxv, p. 353), though no hint is there given as to their significance.

² Fig. 61 is from a restored drawing executed for me by Monsieur E. Gilliéron, fils.

³ See *P. of M.*, i, pp. 412-14, and Figs. 297, 298.

a fashion imitated by a series of contemporary clay vessels showing white spots on a dark ground. (See above p. 36, Fig. 26, *c*.)

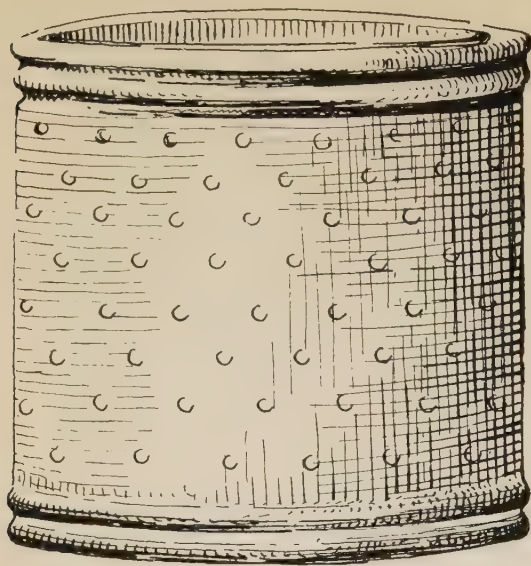


FIG. 61. LIMESTONE POT WITH HOLES FOR INLAYS FROM DROMOS OF 'ATREUS' TOMB: RESTORED.

for vases was most prevalent in the initial phase of the Middle Minoan Age.² Column bases of Kakon Oros stone occur at Knossos in the East Portico of the Palace and in the adjoining 'Spiral Fresco' Area,³ belonging to M. M. III *a* and, though not improbably in this case derived from the earlier Palace, show the continued appreciation

¹ This breccia is also found South-West of Knossos, near Viano, East of the Mesarà Plain, and a very good quality of it that occurs near Hagios Nikolaos supplied the material for some of the beautiful stone vases obtained by Mr. Seager in the Mochlos Cemetery (e. g. *P. of M.*, i, p. 177, Fig. 126).

² Stone vessels of the 'bird's-nest' type of this material, often with lids, were a good deal in vogue in M. M. I (see *P. of M.*, i, pp. 177, 178, and Figs. 126, 127, *a*). The characteristic red veins with white borders were much imitated in M. M. I and II polychrome ware. The 'bird's-nest' type of stone vases is itself taken from Egyptian vessels of the Early Kingdom, going back at least to the Fourth Dynasty.

³ *Op. cit.*, pp. 211, 212, and Fig. 157.

Of still greater interest is the fragment consisting of a kind of breccia, shown in Fig. 62, the surface of which has been hollowed out in two places by means of a cylindrical drill for the insertion of patches of white inlay. The stone, predominantly dark, with bright red veins showing white crystalline borders, will be very familiar to Cretan explorers. It is in all respects similar to that produced by the quarries of the Kakon Oros, the headland of ill name on the coast a little

East of Knossos,¹ and its use

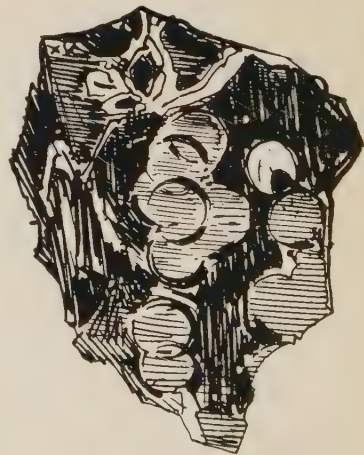


FIG. 62. BRECCIA FRAGMENT WITH QUATREFOIL INCISIONS FOR INLAYS FROM DROMOS OF 'ATREUS' TOMB.

of this beautiful material at that epoch. Still, the vase to which the above fragment belonged clearly represents the earlier tradition as opposed to that of the last Middle Minoan Period, when, as in the succeeding Late Minoan Age, the stone vessels of which we have any record are of such materials as steatite, limestone, and native alabaster.¹

The fragment supplies a valuable clue to its original connexion in the traces of circular borings made to contain pieces of inlay. One of these pieces, moreover, still holds within it the greater part of a cylindrical section of white marble-like material.



FIG. 63. RESTORED VIEW OF BULL'S-HEAD 'RHYTON' WITH BRECCIA FRAGMENT INSERTED.

The circular borings are grouped in one case into a kind of quatrefoil, recalling the conventional rendering of the spots on bulls in Minoan Art, and there can be little doubt that the fragment formed part of a typical bull's-head rhyton, such as is shown in Fig. 63. In the case of the remains of a bull's-head rhyton from the 'Tomb of the Double Axes' at Knossos² quatrefoil inlays of this kind were found, consisting of a dark grey stone. These conventional spots, sometimes trifoliate, represent a tradition of high antiquity. Not only do we find a parallel series in the case of the Hathor cows,³ but rhytons in the form of bulls with inlays of this kind have been found in Chaldaea,⁴ of old Sumerian fabric, going back at least to the beginning of the fourth millennium before our era.

So, too, among Schliemann's finds in the 'Tomb of Clytemnestra' a part of the side of a vase in black and white stone was found 'with plaited

¹ *Op. cit.*, pp. 411, 412, and Fig. 296.

² A. E., *Tomb of the Double Axes*, &c.

(*Archaeologia*, vol. lxxv), pp. 52, 53, and Fig. 70.

³ Cf. *P. of M.*, i, pp. 513-15, and Fig. 370.

⁴ See *P. of M.*, ii, pp. 260-4, and Fig. 156.

basket or leather-work pattern on the outside and ornamented irregularly with small drill-holes for inserting some inlay'.¹ This belongs to the same class as the preceding group—the plait-work, imitating leather, and the drill-holes for inlays being both characteristic marks of the earliest M. M. III

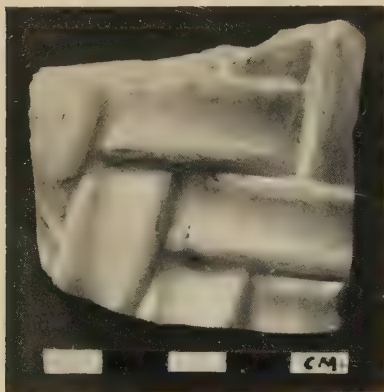


FIG. 64. FRAGMENT OF EWER IN MARBLE-LIKE LIMESTONE, SHOWING PLAIT-WORK DECORATION. FROM N. LUSTAL AREA, KNOSSOS; IN M. M. III *a* DEPOSIT.

phase. (See Fig. 64.) These features are specially associated with a class of ewers of brown and of white marble-like limestone.²

In this connexion, moreover, it is specially interesting to observe that a gypsum fragment was found in the 'Clytemnestra' Tomb in 1913, carved with a spiral pattern, and with the angles filled in with this plait-work pattern, so much in vogue at this particular epoch. Mr. Wace³ suggests that it belonged to a capital of one of the engaged fluted columns on either side of the doorway, which were of the same material. As has been already remarked in the case of the Elgin slabs from the 'Atreus' tomb,⁴ this material must be regarded as a Cretan import.⁵

In the course of the original excavations of the same tomb eight pieces of large pithoi had been found, formed of dark green steatite, one of which was misleadingly published by Schliemann as part of a frieze.⁶ Thirteen more pieces came to light during the repairs of 1913, and ten of these proved to belong to a large vessel resembling the 'Medallion pithoi' of Knossos.⁷ (See Fig. 65.) An improved restoration⁷ of this, as drawn by M. Gilliéron,

¹ Wace, *B.S.A.*, xxv, p. 364, who admits the M. M. III connexion of the fragment. It is 2 cm. thick. Since lost in Athens Museum.

² See *P. of M.*, i, pp. 411, 412, and Fig. 412. The fragment (Fig. 64) is in the Ashmolean Museum.

³ Wace, *op. cit.*, p. 367. Since lost in Athens Museum.

⁴ See above, p. 80, and cf. Doerpfeld, *Ath. Mitth.*, 1905, p. 288.

⁵ Schliemann, *Mycenae*, Fig. 215.

⁶ *P. of M.*, i, pp. 562-5, and Fig. 409.

⁷ A figure of this, as originally restored, was

published by Mr. Wace, *B.S.A.*, xxv, p. 367, Fig. 80 (see, too, p. 368). That large white limestone pithoi existed in the Palace of Knossos is shown by the isolated discovery of a massive fragment of one in the Lower Long Corridor. Part of a flat horizontal band and of the spring of a handle is visible, but it is not possible to say whether there were any reliefs resembling the 'medallion'. The fragment was probably derived from the rubble masonry used in the neighbouring part of the restored structure, and certainly has nothing to do with the contents of the later Palace



FIG. 65. 'MEDALLION' PITHOS ; NTH MAGAZINE, KNOSSOS.

filis, is given in Fig. 66. Amongst other details, the profile of the rim, with the collar below, exactly corresponds. A special feature is the imitation plait-work seen on the horizontal bands, an ornament that does not occur on any known 'medallion pithoi', but which recalls the plait-work such as that already mentioned. The material itself may well be Cretan, since large deposits of green steatite occur in the East of the island.

The clay 'medallion pithoi' themselves range over both the earlier and the later phase of M.M. III, one of them, indeed, bearing the impress of a signet, showing the conventional façade of a building¹—a type of M.M. II tradition. The correspondence in details and contour, visible in the steatite example with those of the finest class of M.M. III jars of this type (Fig. 65),² combined with the plaitwork decoration answering to that of M.M. III stone vessels of another form, supply sufficient warrant for concluding that we have here a contemporary counterpart in stone, belonging to the earlier M.M. III phase.³ From the existence of the other fragments this

¹ *P. of M.*, i, pp. 564, 565, and Fig. 411.

² *Op. cit.*, p. 563, Fig. 409.

³ Mr. Wace, *B. S. A.*, xxv, p. 368, is much exercised by his endeavour to bring down the date of these pithoi to that of the Mycenaean decadence. 'They would certainly be later than the Cretan originals in clay because copies must be later than the originals' (but they are not mere copies, and in some details run parallel with other M.M. III stonework). 'Still such ambitious stonework of this type corresponds with the character of the Treasury of Atreus and the Tomb of Clytemnestra with their façades of elaborately carved stone of many colours. It is a distinct attempt on the part of the Mycenaean to outdo their Cretan masters. We may therefore attribute these vases to the beginning of L.H. III, when this Tomb and the Treasury of Atreus were built.' Late Helladic III is Mr. Wace's equivalent for the Mainland style contemporary with L.M. III, but this unfortunate sherd, on the dating of which so much is made to depend, must certainly be relegated at least to the closing phase of L.M. III. Setting this aside, there is still a gap of some three centuries. 'No previous examples of this type of pithos in any material'—as Mr. Wace himself rightly ob-

serves—'have been found on the Mainland.' In fact at Knossos itself they hardly occurred outside the 'Royal Magazines'.

How then, it may well be asked, did this master lapidary of the Mycenaean decadence obtain his models? By excavation in the Palace Magazines of Knossos? That itself was not enough, since he introduced details derived from contemporary stone vessels of another class, such as were stored elsewhere. He must have been both an excavator and an archaeologist.

In *J. H. S.*, xlv, p. 112, Mr. Wace takes refuge in a further suggestion that these great jars may have been 'antiques'. In the case of stone vessels—usually of hard and decorated materials—such heirlooms are not infrequently found. But in this instance we have large steatite jars—more than one of identical make—probably serving a utilitarian purpose, and it is important to bear in mind that they form part of a group to which the rhyton fragment and cylindrical stone vase already described also belong, all dating from the Cretan M.M. III period. The style of the 'Atreus' façade, moreover, as shown above, agrees with this concordant dating. Are we then to imagine a connoisseur of

seems to have been one of a series of such palatial jars, placed originally within the vault, and, probably, like their clay prototypes, filled with oil.

Four pieces of 'a large vase of red stone with a heavy moulded rim', also found in this tomb during the repairs of 1913, are supposed by Mr. Wace to have formed part of a pithos similar to those described.¹

GENERAL CONCLUSION;
BURIALS TRANSFERRED FROM
BEE-HIVE TOMBS TO SHAFT
GRAVES IN L.M. I b.

Nothing could be more natural than that, when, *ex hypothesi*, the mortal remains and precious funereal relics of the rulers of Mycenae were transferred to a safer resting-place, these stately jars, recalling those of the Royal Magazines of Knossos, should have been left in their places and have been made use of, perhaps, in memorial ceremonies still held within these vaults.

On the other hand, in the remains, small that they are, of the gold plates and roundels for attachment to wooden or, perhaps, leather backgrounds, we may well recognize remnants lost at the time of removal that had once formed part of the adornment of the actual coffins or wrappings of the dead.

The latest of these, as we have seen, date from an advanced stage of the L.M. I b Period, or c. 1450 B. C., a date which approaches that of the latest relics found in the Shaft Graves. The 'medallion' pithoi from the 'Clytem-

a modern type, suiting his furniture to his building, and carefully selecting vases to harmonize with the period of his façade?



FIG. 66. 'MEDALLION' PITHOS OF DARK GREEN STEATITE FROM 'CLYTEMNESTRA' TOMB. RESTORED BY MONSIEUR E. GILLIÉRON, FILS. HEIGHT, 3 FT.

¹ *B.S.A.*, xxv, p. 366. This vessel was 6 cm. thick, and the rim 7.5 cm. wide.

nestra' Tomb, however, like the inlaid pot and bull's-head 'rhyton' from the 'Atreus' *dromos*, as well as the comparisons suggested by the decorative sculptures of its façade, take us back to the earlier phase, *a*, of M.M. III, to which the most ancient Minoan elements found in the Shaft Graves also belong—in other words, well back into the seventeenth century B.C. Thus the two groups, so far from representing successive chronological stages, were contemporary with one another, and the theory of a 'Tholos Tomb' dynasty succeeding one represented by the Shaft Graves falls to the ground. The alternative supposition of two great dynasties coexisting at Mycenae and burying their dead according to different systems—almost within a stone's throw of one another—is too absurd to need serious discussion.

Over and above this, moreover, when we examine the evidence supplied by the Bee-hive Tombs of Mycenae, as illustrated by their finest examples as well as by the form and contents of the Shaft Graves, we are confronted by a recurring phenomenon of the highest interest. This is the cumulative proof of an enduring and, in many respects, an exclusive connexion with the great Cretan centre.

Evidences of Enduring Connexion between Knossos and Mycenae.

A brief retrospective glance at the points of contact noted in the preceding pages sufficiently establishes this fact. It has been shown that the two fragmentary slabs found in front of the 'Atreus' façade are not only of the gypsum material, for the export of which Knossos was the natural centre, and had been fixed in a manner analogous with that of the orthostats of the Palace walls, but that they reflect great parallel friezes illustrating bull-catching scenes, of which the painted stucco reliefs of the Northern entrance porticoes supply us with the natural prototypes.

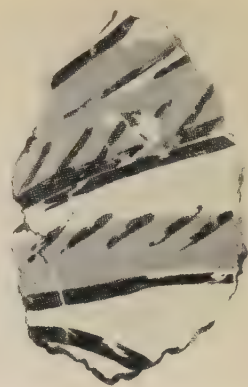
In the same way it is the Palace of Knossos in its Third Middle Minoan stage that has alone and abundantly supplied, as we have seen, the models of the decorative reliefs in stonework, the rosettes and half-rosettes and triglyphs, the delicate cavetto borders and spirals of the 'Atreus' façade itself. No fragment of such has come to light at Phaestos or on any other Cretan site. In the case, moreover, of the gypsum fragment apparently belonging to one of the engaged columns of the 'Clytemnestra' Tomb, spirals of this class are combined with a plait-work pattern derived from basketry or leather-work, which again is a recurring feature of Knossian lapidary work, unknown elsewhere. The same decoration, moreover, coupled with borings for inlays, recurred on a stone vase from the same tomb, and this again is supplemented by the occurrence in the *dromos* of the 'Atreus'

Tomb of remains of limestone vessels with circular borings—characteristic of the M.M. III *a* Knossian deposits.

The best parallel to these stone fabrics has to be sought in the remains associated with the lid of the Hyksos King Khyan in the 'Initiatory Area' to the North of the great Minoan Palace. The breccia material, on the other hand, of the associated fragment of the bull's-head rhyton with quatrefoil inlays takes us to the neighbouring quarries of the Kakon Oros. Of special significance, moreover, are the remains of the large 'Medallion pithoi' from the 'Clytemnestra' Tomb, since here we see reproductions in green Cretan steatite, of a type of vessel, best represented in the 'Royal Magazines' of the Middle Palace at Knossos, and of which again, no specimen has been found on any other site.

The presence, indeed, of these palatial vessels brings the great sepulchral vaults of Mycenae into a specially close relation with the residential centre of the Minoan Priest-Kings, as it existed on Cretan soil in the age that preceded their construction. The dependence of the bull reliefs on the Elgin slabs from the entrance area of the 'Atreus' Tomb is itself only one of a series of significant phenomena. The existing remains of the Palace at Mycenae itself, so far as they

have been preserved to us, suggest a very direct inspiration from the same source. The North-West Propylon, with its fine con-



a



b

FIG. 67 *a, b*. DECORATIVE FOLIAGE OF WALL-PAINTINGS, MYCENAE.

glomerate column bases in the good Minoan style and the fragments of a triglyph border, point unquestionably in that direction. The traditional 'notched



FIG. 68. SPRAYS IN STYLE OF LAST WALL DECORATION OF PALACE, KNOSSOS.

plume' and painted decoration of the hearth within the Megaron—renewed, as Miss Winifred Lamb's careful researches have shown, no less than ten times—goes back to the best fresco models of the M. M. III Palace at Knossos. The arrangement of four columns seen around it repeats a recurring feature in the Minoan domestic architecture of Crete. For the restored drawing of the Court in front of the Megaron, indeed, Mr. de Jong was inevitably led to take for his model the structural arrangement of the Domestic Quarter of Knossos, which in its essential lines also goes back to the early phase of the Third Middle Minoan Period.

Among the fragments of fresco found in the 'Ramp House' at My-

cenae that lies immediately to the South-East of the Grave Circle, and derived, according to the excavators' suggestion, 'from the Palace on the summit of the Acropolis', were certain pieces depicting conventional foliage of the same kind that is associated at Knossos with the Griffins in the Room of the Throne. The resemblance, indeed, as will be seen from Fig. 68, extends to detail, and though the Mycenae sprays are in a slightly inferior style they represent the work of a contemporary copyist.

At Knossos this system of decoration, which lays stress on conventional

foliage, was evidently carried out over a wide Palace area and recurs on fresco fragments marking the last L.M. II works of restoration in the Domestic Quarter, from which Fig. 68 is taken. It is certainly, therefore, a significant fact that, in days when, according to the general belief, the centre of Minoan power had been transferred to the Mainland side, the prevalent style of the old Palace should still have set the fashion at Mycenae as it had done two centuries before.

Finally, we have to recall the extraordinary phenomenon, which I hope to deal with elsewhere, of the survival in the great Mainland centres—at Mycenae, Tiryns, and Thebes—during the period that immediately succeeded the fall of the Knossian Palace, of its particular system of advanced linear writing and even, it may be said, its ‘Court-hand’.

The archaeological evidence above recapitulated supplies, in fact, abundant evidence of a definite and prolonged historical relationship between Mycenae and Knossos, which fits in well with the geographical position occupied by the sea outlets of both cities on the opposite sides of the Western Aegean basin.

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